Table of Contents

Philip I. Dunklin: President and Publisher • L. Dennis Smith: Editorial Director
Jennifer Quay Allen: Managing Editor • Garrett Johnston: Editor • Scott Horton: Editor

Address all correspondence to: Chartwell Inc., 2964 Peachtree Road, Suite 250, Atlanta, Georgia 30305.
Telephone: (800) 432-5879 or (404) 237-9099; Fax: (404) 237-5334;
e-mail: utility.info@chartwellinc.com; Web site: http://www.chartwellinc.com.

Section I: Analysis and Overview

Green power offers challenges and opportunities

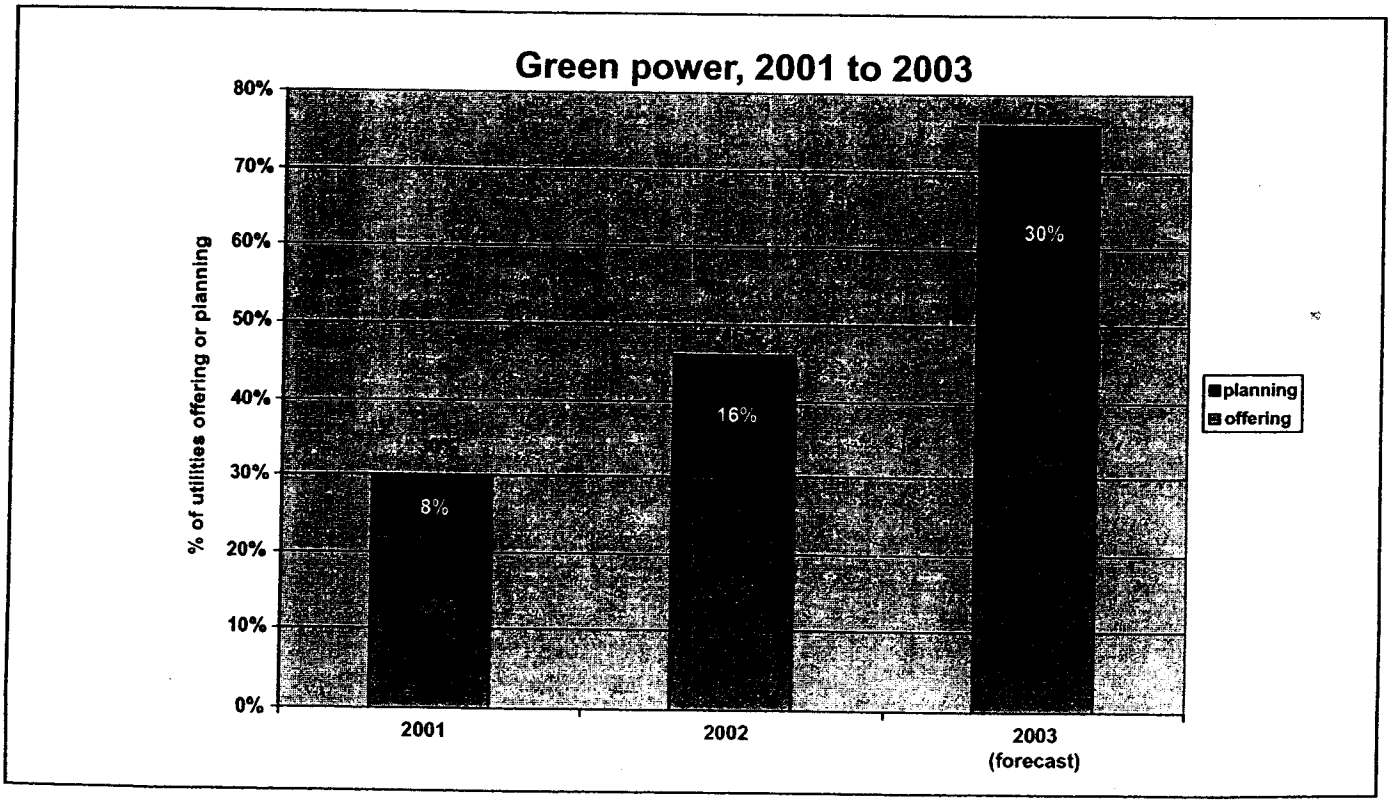
As recent has five years ago, renewable energy wasn't on many utilities' radar screens. Renewable energy or green power was a dalliance for near-extreme environmentalists who erected rooftop solar panels and were willing to take cold showers on cloudy days. Utilities looking to offer non-commodity products or services were diving into home security, appliance sales and telecommunications. My, how times have changed.

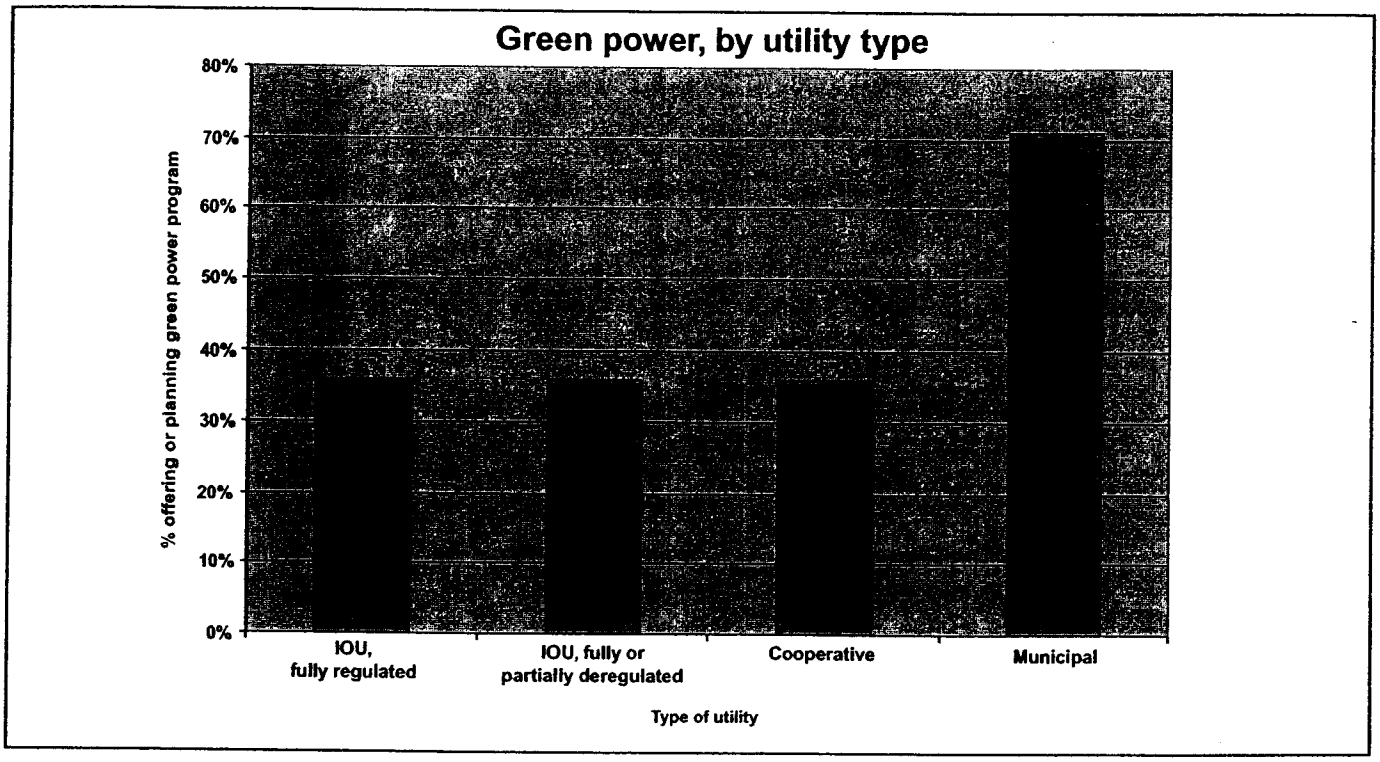
Like bottled water, café latte and casual Fridays, being "green" quickly caught on among the general population, many of whom now — despite pundits' predictions otherwise — regularly recycle, buy "dolphin-safe" tuna and generally try to conserve energy. These days, a consumer doesn't have to be an extremist to be willing to pay a little more for cleaner energy that comes from renewable sources.

While some of these conclusions are obvious based on anecdotal evidence, Chartwell research of utilities bears out several points. First, the number of utilities offering their customers green power is on the rise and will continue to grow until, within another five to 10 years, just about every utility in the nation will be offering some sort of renewable energy program, Chartwell researchers predict.

Green power programs are one of the fastest growing utility products, according to Chartwell research.

In Chartwell's 2001 survey of utilities regarding their ancillary products and services, 30% reported either offering or being in the planning stages of offering green power. In the 2002 survey, the percentage of utilities offering green power grew to 30% — as Chartwell predicted based on the 2001 data. But in 2002, another 16% of utilities reported planning to offer green power (and another 16% were "considering" implementing a green power offering with two years).





Municipal utilities offer their residential customers green power at a much higher rate than do IOUs or cooperatives.

Thus, by the end of 2003, almost half (about 46%) of utilities will be offering green power, Chartwell researchers predict.

Over the course of five years — from the late '90s, when Chartwell found only a handful of utilities offering green power, to late 2003, when almost half of utilities will be offering a green power program — renewable energy will have grown from an unusual product targeted to a small niche market to a mass-market offering that many customers will come to expect from their utilities.

Mark Kapner, Austin Energy's manager of conservation and renewable energy, summed it up when he told Chartwell, "Traditionally renewables have been seen as flaky, environmentalist, tree-hugger, granola-eater stuff. In reality, this makes good, solid business sense." The environmental benefits are icing on the cake, he added.

Green power by utility type, size

When Chartwell data is tabulated by utility type, the results are telling. Which types of utilities are offering or in the planning stages of providing green power to residential customers?

- 36% of IOUs operating in regulated territories;
- 36% of IOUs operating in deregulated territories;
- 36% of cooperatives; and
- 71% of municipals.

One reason for municipal utilities' "corner" on the green power market is the fact that the organizations from which they purchase power make it easy for them to offer green power programs. For example, TVA provides not only green power, but also marketing expertise and materials and program administration help to its member municipal and cooperative utilities.

As illustrated by the fact that more than a handful of city governments have committed to buying green energy to power their facilities, perhaps the government leaders of municipal utilities have the opportunity to be more environmentally minded than their counterparts at investor-owned utilities.

Interestingly, utility ownership is the ONLY factor that seems to impact whether an energy company offers green power to residential customers. Chartwell specialists analyzed the data based on size of customer base and geographic location, and were surprised to find that neither of these have much impact on the rate at which energy companies offer green power.

In addition, an investor-owned utility's market — regulated vs. deregulated — also had no bearing.

FYI

Utility ownership is the only factor that seems to impact whether an energy company offers green power. Size of customer base and geographic location have little to do with it.

Of the 50 energy companies Chartwell surveyed in 2002, the following were already offering green power to residential customers:

- Connexus Energy (co-op)
- Dakota Electric Association (co-op)
- El Paso Electric (IOU-regulated market)
- Madison Gas & Electric (IOU-regulated market)
- City of Ames Electric Services (municipal)
- City Public Service of San Antonio (municipal)
- Colorado Springs Utilities (municipal)
- Electric Power Board of Chattanooga (municipal)
- Lincoln Electric System (municipal)
- Clark Public Utilities (public utility district)
- Omaha Public Power District (public utility district)
- An anonymous IOU in a deregulated market
- An anonymous IOU in a regulated market
- An anonymous IOU in both regulated & deregulated markets
- An anonymous municipal

The following were in the planning stages of offering a green power program to residential customers:

- Nicor Energy (competitive energy marketer)
- Central Iowa Power Co-op (co-op)
- Johnson County REMC (co-op)
- Otter Tail Power (IOU-regulated market)
- Progress Energy (IOU-regulated market)
- Florence Utilities (municipal)
- Richmond Power & Light (municipal)
- An anonymous IOU in regulated & deregulated markets

A table that summarizes utility green pricing programs by state can be found at http://www.eren.doe.gov/greenpower/summary.shtml. In addition, REPiS (www.eren.doe.gov/repis/) is a database developed and recently updated by the National Renewable Energy Laboratory (NREL) with funding from the U.S. Department of Energy. This database contains information on almost 113,000 MW of renewable energy generation capacity connected to the utility grid. It provides information on renewable energy plants and installed capacity for energy planners, policy makers, and others interested in renewable energy. Originally created

in 1984 and now updated through mid-1999, REPiS contains information on operating as well as planned renewable energy units.

Also, the Center for Resource Solutions has on its Web site a list of Green-e Certified Electricity Products at www.green-e.org/pdf/active_cert_products.pdf. The products are listed by marketer and include information on the utilities that purchase those products for resale to customers. Among the utilities listed are Allegheny Power, Duquesne, GPU, PECO, PP&L, UGI, PSE&G, Conectiv, Pepco, and others.

A sampling of participation rates

Based on Chartwell's interviews with utility executives and others, Web research and analysis of media coverage, we've uncovered a wide sampling of rates at which residential consumers participate in utility green power pricing programs. Among them are:

- Nearly 5,000 customers had signed up for Puget Sound Energy's one-year-old Green Power Plan as of the end of 2002. This represents less than 1/2% of its residential customer base of 1.2 million. PSE sells renewable energy in the form of green tags in blocks started at $4 per month. The average residential customer is paying $6.14 extra for 1,150 kWh of green power.

- OPPD signed up about 1% of customers within the program's first year.

- Dakota Electric Association, a 90,000-customer co-op, has had 1,000 (1.1%) sign up.

- Lincoln Electric System, a 120,000-customer muni, has had 2,000 (1.6%) sign up.

- Austin Electric has more than 6,600 residential subscribers — 1.9% of its customer base of 350,000. In addition, 125 small businesses and 30 of Austin's largest companies have subscribed to GreenChoice for a total of more than 206 million kWh, or enough electricity to power about 17,000 homes year-round.

- As of Oct. 24, 2002, Portland General Electric had signed up 17,249 customers for renewable energy. That's 2.3% of its residential customer base of 740,000.

- Also as of Oct. 24, 2002, Pacific Power had signed up 11,922 customers, 2.3% of its customer base of 520,000.

- Madison Gas & Electric, an IOU with 125,000 electric customers, has had more than 4,500 (4.1%) sign up for green power.

- With 18,000 customers signed up, SMUD has seen a 3.8% participation rate. Utility leaders forecast that 7% to 10% of customers eventually will sign on.

In addition, the NREL provides the following data on its Web site. (Note that some of this data is older than the data Chartwell presents above.) The top-10 green power programs based on number of participants are:

• Los Angeles Department of Water and Power, *Green Power for a Green L.A.*, 87,000 participants (about half are low-income customers that receive existing renewables at no extra cost);
• Xcel Energy (Colorado), *WindSource*, 18,600 participants;
• Sacramento Municipal Utility District , *Greenergy - All Renewables*, 14,200 participants;
• Xcel Energy (Colorado), *Renewable Energy Trust*, 10,900 participants;
• Wisconsin Electric Power, *Energy for Tomorrow*, 10,700 participants;
• PacifiCorp, *Blue Sky*, 7,300 participants;
• Austin Energy, *GreenChoice*, 6,600 participants;
• Portland General Electric Company, *Salmon FriendlyClean Wind Power*, 5,700 participants;
• Wisconsin Public Service, *SolarWise for Schools*, 5,200 participants;
• Tennessee Valley Authority, *Green Power Switch*, 4,900 participants (TVA supplies the power for programs offered by 12 distribution utilities).

Also according to the NREL, the top 10 programs in terms of participation rates are:

• Moorhead Public Service, *Capture the Wind*, 7.0%;
• Los Angeles Department of Water and Power, *Green Power for a Green L.A.*, 6.7% (about half are low-income customers that receive existing renewables at no extra cost);
• Orcas Power & Light Cooperative, *Green Power*, 5.1%;
• Holy Cross Energy, *Wind Power Pioneers*, 5.1%;
• Madison Gas and Electric, *Wind Power Program*, 4.1%;
• Cedar Falls Utilities, *Wind Energy Electric Project*, 4.0%;
• Central Electric Cooperative, *Green Power*, 3.7%;
• Eugene Water and Electric Board, *EWEB Wind Power*, 3.3%;
• Consumers Power, *Green Power*, 3.1%;
• Sacramento Municipal Utility District, *Greenergy - All Renewables*, 3.0%.

Utilities' motivations

Utilities have different motivations for offering green power; among the most common are:

• Government mandate — in some states or municipalities, local governments have either asked or demanded that their utilities either offer customers green power or derive some of their energy from renewable sources. In Washington state, for example, House Bill 2247 required all utilities to provide qualified alternative energy resources by 2001. Other states require utilities to include a minimum amount of renewable energy in their portfolio.

• Customer satisfaction — in a mindset that began with the threat of competition, utility leaders believe that the more choices they give their customers, the more customers they can keep happy.

In the Wisconsin Electric territory, for example, about 75% of the public was interested on some level in clean or green energy; the wind turbines the utility erected along U.S. 41 in June 1999 represent Wisconsin Electric's positive response to that demand. Wisconsin Electric's green power program is an offshoot of public discus-

sions on restructuring and customer choice that started in 1995. Although industry restructuring was put on hold in Wisconsin, the utility came away from the debates with the realization that the public didn't widely understand customer choice issues. Some kind of program was needed as an example or prototype for customer choice. At the same time, renewable resources had been a topic of discussion for a decade. It was the perfect fit for introducing customers to choice.

When local governments begin enacting environmental legislations, they often start with themselves, putting in place a minimum amount of green power they will buy. If these localities have their own municipal electric utilities, one of the easiest ways to meet the standards is to put in place a program under which the utility contracts to purchase green power.

Unfortunately, mandates sometimes pose an obstacle to utilities. In New Mexico, for example, PNM, El Paso Electric and Xcel Energy have asked state regulators to reconsider a new rule that requires power companies to derive 10% of their electricity from renewable sources by 2011. "Such programs as these should be customer demand-driven and market-driven, not mandated," Xcel spokesman Bill Crenshaw told the *Albuquerque Journal* in January 2003. "We think that mandated programs such as these impose an unnecessary cost on the customers." PNM spokesman Don Brown added that regulators need to provide more guidance on how utilities could recover the costs of investing in renewable energy. "We're looking at costs in the hundreds of millions of dollars. This is not small change," he said.

"

Such programs as these should be customer demand-driven and market-driven, not mandated.

"

To ease the green power purchasing process, utilities don't have to purchase the green power itself. Another option is to purchase green tags/credits (also called tradable renewable energy certificates or renewable energy credits). The green tag is a type of currency used in the electricity industry to represent the environmental and societal benefits of clean electricity production. The green tag is separated from the electricity produced and represents the environmental attributes equivalent to the amount of renewable electricity produced. For example, a green tag broker pays the above-market cost of 1,000 MWh of electricity from the owner of a wind farm. The wind farm owner sells the 1,000 MWh of electricity into the wholesale electricity market. The environmental attributes of the 1,000 MWh of wind electricity transfer with the green tags to the utility or customer buying the tags from the green tag broker. Buying the tags has a similar effect as buying green power, except the purchaser does not need to schedule or transmit the green power to a specific distribution grid or customer.

Waverly Light and Power launched the Iowa Energy Tags Program in 2001, becoming the first electric utility in the nation to offer the increasingly popular tags.

Green tag marketers include 3 Phases Energy Services, Aquila, Basin Electric Power Cooperative, Bonneville Environmental Foundation, Community Energy Inc., Environmental Resources Trust, LADWP, NativeEnergy, PG&E Corp., Sun Power Electric Corp., and Waverly Light and Power, among others.

Utilities face many challenges

Customers may say they want green power — and many customers even report on surveys that they'd be willing to pay more for renewable energy. In a Green

Mountain Energy Co. survey conducted in March 2002, 44% of respondents said they'd make an effort to be "greener" if more environmentally friendly products and services were available. Another survey, conducted by the Gallup organization in late 2001, found that 91% of Americans polled favored the development of new sources of energy, such as solar, wind and fuel cells.

According to research conducted by Coweta-Fayette EMC in suburban Atlanta, just over half of customers surveyed said they'd be willing to pay at least $1, and 35% said they'd pay $5 or more per month for enough green power to run a refrigerator and small kitchen appliances (about 15% of their total usage). Michael Whiteside, president of Green Power EMC, of which Coweta-Fayette is a member, was surprised at these results. "I would have expected maybe 5% or 10% [willing to pay more]. Of course, we know that doesn't necessarily mean they're going to sign up. But what we wanted to find out was whether we had the level of interest we needed" to proceed with the landfill projects, he told Chartwell. The group's marketing efforts have just gotten underway. (See full case study on Green Power EMC is Section III.)

"There's about 60% to 70% of the population that says 'yes, we're interested in renewable energy,' but when you put some dollar values in front of them, the number [interested] drops substantially."

But when it comes to putting their money where their mouths (or good intentions) are, few pay up.

Chartwell analysts have determined that fewer than half a million residential customers are buying renewable energy. Data from NREL (a division of the Department of Energy) shows that renewable energy is available to about 40% of the market. "More than 300 utilities (as recently as early 2002, NREL reported the number as 90 utilities) in 31 states, including IOUs, rural electric cooperatives and other publicly owned utilities, offer a voluntary green pricing option to their customers or are in the process of developing such a program, according to the agency. With 94 million households in the U.S. (Chartwell estimate), that means about 37.6 million households have access to renewable energy. However, across a wide variety of utilities, about 1% of customers or less sign up.

In fact, many utilities that offer renewable energy to their mass market customers have a penetration rate of 1% or less. The most successful programs achieve 5% to 7% participation.

Elliott Spilker, OPPD's program manager, says,. "Our studies have shown what the national studies have shown. There's about 60% to 70% of the population that says 'yes, we're interested in renewable energy,' but when you put some dollar values in front of them, the number [interested] drops substantially. I think our research showed about 10% would be willing to pay more. Nationwide it's usually around 2% to 4%."

Why the disconnect? The primary challenges utilities are facing when it comes to offering renewable energy are:

- Marketing and targeting customers.

- Concern over recent rate increases — in Washington state, for example, several utilities identified rate increases as a factor that significantly challenged the level of customer participation in their green tariff programs.

• Complex and abstract nature of electricity in general and renewable power specifically — not only is it difficult to explain renewable energy and the concept of moving electrons across wires, but it's difficult to explain to customers where their money is going and what they're getting for it. Jim Burke, SMUD's Greenergy Program Manager, ran into this issue. "Like most Green Power programs, Greenergy struggles with how to explain and sell a complex product that cost more money and is invisible. We also struggle with keeping this product relevant in California's energy environment that changes so radically year-to-year," he says.

In addition, customers may not trust their utilities' green credentials. Effective branding can help overcome this skepticism, according to Ron Bloemers, a consultant with McKinsey & Co. According to McKinsey research, a utility's green offering "must require little sacrifice from the average consumer," Bloemers writes in "Paying a green premium," an article in the *McKinsey Quarterly*, 2001 Number 3. "Even if most consumers supported green power and would pay a premium for it, they would act only if the effort needed to switch were minimal, the extra cost not prohibitive, and reliability and service quality assured," Bloemers asserts.

> *"Clearly, utilities will have to persuade consumers that any power sold at a premium as green really is generated in environmentally friendly ways and provides tangible environmental benefits."*

Perhaps the most important task, however, Bloemers continues, is to build trust. "Most consumers are wary of green hype. In particular, many are skeptical of fashionably green claims made by big incumbent utilities. Clearly, utilities will have to persuade consumers that any power sold at a premium as green really is generated in environmentally friendly ways and provides tangible environmental benefits."

Adding to customer confusion, terms like "green" and "environmentally friendly" currently have no standard definition in the energy industry. The Green-e Program has created a definition of renewable energy so consumers can have an objective standard against which products can be compared. The Program ensures that electricity products receiving Green-e certification meet this standard. The Green-e Program calls a power product environmentally preferable if it contains at least 50% eligible renewable power, has lower air emissions than traditional power, and contains no direct purchases of nuclear power.

Renewable power sources include solar, wind, biomass, geothermal and hydroelectric. While all forms of hydropower are renewable, not all facilities qualify for Green-e. Currently only small hydro and certified Low Impact Hydro facilities qualify. Green-e defines small hydro as dams 30 megawatts or less in size. Hydropower facilities that have been certified by the Low Impact Hydropower Institute (LIHI), regardless of size also qualify for Green-e, beginning in 2001 in California and 2002 in all other states. The LIHI criteria for certifying dams takes into account the environmental impacts of the hydropower plants.

What is working well?

Some of the utilities Chartwell has studied provide insights into what works well when it comes to marketing a mass-market renewable energy program:

At Madison Gas & Electric, "In the planning of our marketing we tried to bring in allies from the community — environmental groups, community neighborhood groups, others who were champions for this — to help spread the word and help

us plan the marketing campaign. We were able to leverage those contacts to reach more customers and to improve our credibility with the product," says Laura Williams, market development manager.

At MG&E, the majority of sales came in response to billing inserts. "That wasn't the highest penetration or sales rate though," Williams notes. "We had a higher percentage response rate to direct mail, where we actually gave consumers more information. We had a series of three direct mail pieces that went out to a targeted groups of about 10,000 customers three different times. It was a series of three letters that had slightly different messages." Customers were targeted geographically by neighborhoods where incomes and education levels were higher than average. "But," she adds, "we made it so easy for them to sign up that a lot of folks did through the bill inserts."

SMUD's Greenergy was introduced with a well-attended, joint county/utility media event in February 2000. The event showcased the new plant and offered tours to government officials and media representatives. The event attracted widespread coverage in TV, radio, and newspapers. The utility also placed ads in various media. At the same time, newsletters within the monthly customer bills carried articles and information on the program. The Greenergy marketing mix has evolved over the years from an almost total dependence on bill inserts to a fully integrated direct marketing system that coordinates advertising, bill inserts, call center sales, direct mail, public relations and retail partnerships with local merchants.

"Greenergy makes every effort to understand exactly what each marketing campaign costs and how many customers enroll as a result," Burke explains. "Each enrollment is coded by tactic. Results are shared weekly with all marketing team members so that we can make better decisions. It's an imperfect science, and there can be some ugly findings, but understanding marketing effectiveness makes it much easier to improve program effectiveness."

What works for Greenergy?

- Bill package efforts including bang tails (a tear-off coupon on the outside of the return envelope), full-color or two-color bill inserts and articles in connection with the newsletter add interest and topical information;
- Call center contests and incentives for customer service reps who sell Greenergy;
- Targeted direct mail;
- Retail partnerships with local merchants like Starbucks, Jamba Juice, Arden Fair Mall, Sacramento Natural Foods Coop, and The Sacramento Kings;
- Third party endorsements — the Greenergy program is certified through the Center for Resource Solutions (CRS) and has the right to use the Green-E logo in advertising efforts;
- Flexibility and constant testing — SMUD regularly tests appeals, offers, list segments and production levels.

In addition, Burke provides some advice:

Please see Page 14

Recently in the news

In January 2002, Avista Utilities launched its Buck-A-Block program, which allows customers to purchase wind power in 55 kWh blocks at $1 per month each.

Nevada Power Co. is expected to begin construction on an 85 MW wind farm of 57 wind turbines in December 2003, pending state regulatory approval. The project has the capability of producing enough clean energy to serve a community of 50,000, according to the Las Vegas Review-Journal. Under a new law, the utility must obtain 5% of its total energy sales from renewable power sources by 2003, increasing gradually to 15% by 2015.

In December 2002, Santee Cooper in Moncks Corner, S.C., achieved national Green Power Accreditation for its green power program. Santee Cooper distributes power to the state's 20 electric cooperatives, which have about 615,000 customers total. It plans to make green power available to all its residential customers in blocks of 100 kWh each for $3 per block.

ConEdison Solutions in New York kicked off its marketing of green power to residential customers in the greater New York City area on Dec. 31, 2002.

FPL Energy added 324 MW to its wind energy portfolio in 2002 and plans to build more than 430 MW of new wind facilities in California, New Mexico and the Dakotas during 2003. FPL owns more than 1,700 MW of wind power facilities in 10 states.

In September 2002, Niagara Mohawk, Syracuse, N.Y., and Sterling Planet, an Atlanta-based environmental energy company, teamed to offer a menu of environmentally friendly choices for utility customers. All Niagara Mohawk residential and commercial customers can now choose to have their electricity produced by a mix of less-polluting, renewable sources — 30% wind, 20% hydro and 50% biomass — from New York state generators. Details on the program and an enrollment form were provided in Niagara Mohawk September bills. For a typical residential customer using 500 kWh per month, the additional cost for cleaner energy would be $3.75 for a 50% green energy upgrade, about $5.63 for a 75% upgrade or $7.50 for a 100% upgrade. Actual monthly premiums will vary with actual electricity use.

In May 2002, Sterling Planet and Harvest Communications began offering the Green America program to assist electric utilities in providing renewable energy choices to all their customers. Green America currently has three main components: Green for Homes, Green for Schools and Green for Businesses. Green America is a complete, turnkey program that enables utilities to rapidly and efficiently begin offering their customers a green energy choice. Fundamentals of the program include identifying and securing local green energy suppliers; balancing supply and demand with wholesale markets; educating the public about environmentally friendly green energy; aggressively marketing solar equipment; actively converting residential and commercial customers to green energy use; installing solar equipment on homes, businesses and schools; and servicing and growing the green energy customer base.

In January 2003, Pepco Energy Services (PES), in partnership with Commonwealth Green Energy, LLC and Fauquier County landfill owners, announced that it will transform the aging Warrenton, Va., landfill into a source of green energy for local residents — enough electricity for about 400 homes. "Landfills the size of ours are generally overlooked by developers because they think the projects are too small to be commercially viable," said landfill employee Ellis Bingham. "Now, local residents benefit because they get a system to manage harmful gas emissions at the landfill at no cost to the county, and Pepco Energy Services benefits because it can use the landfill gas to generate electricity." According to Ed Mayberry, president and CEO of PES, "We already generate some green electricity from solar cells, and we buy credits for green energy from wind farms and other projects. Now we will take the first of many steps into developing our own sources of non-polluting alternative energy. It is what our customers want, and we are determined to provide it to them."

Continued from Page 12

- Measure results — and expect them to change over time.
- Test design formats. "We found that fancy, corporate appeals suppress response."
- Strive for a diverse marketing mix — no one channel or appeal works forever.
- Look for marketing opportunities within the utility — other programs or departments who can help your program grow.

"

Customers do not understand kilowatts. So we wanted to put a name to each level and equate that to the environmental impact.

"

Wisconsin Electric started its green power marketing efforts with a test direct-mail campaign to 50,000 customers to determine which segments would be most likely to participate. About 1,000 signed up. With a better profile of who the potential participants would be, the utility sent out another, more targeted direct-mail piece in early 1997 and followed up with a telemarketing campaign. "That was hugely successful, and we met our goal of 7,200 participants before we hit our June 19 one-year anniversary," says company spokesperson Chris Schoenherr. "As a utility, our mail still gets opened. So we have a pretty good chance of people reading whatever it is that we send. The combination of sending the direct mail and then having an opportunity of talking with someone [through telemarketing] about the program, answering questions, helped close the sale."

Elliott Spilker, manager of program management at OPPD, explains where the utility found success: "We have quite a few people signing up at what we call the supporter, promoter, patron and sponsor levels. We wanted to get away from equating it to kilowatts because — [as we learned] through our research and at green power conferences — customers do not understand kilowatts. So we wanted to put a name to each level and equate that to the environmental impact. As an example, our supporter level keeps one ton of coal in the ground for future use. It's equivalent to planting three-fourths of an acre of trees. It has the environmental impact of not driving your car for 3,600 miles. So we will be using those kinds of tag lines," he says.

"We had a lot of design changes with our green power brochures," Spilker continues. "We had to have them redesigned four times before we got what we wanted. We were looking for an emotional, personal appeal. As a utility, we tend to be very conservative, very black and white and institutional. We were trying to get away from that. Everybody told us at the green power conferences we've attended that it's an emotional decision, it's not a nuts and bolts kilowatt issue. Sixty-second radio spots started in January 2002 with the theme "become a green power partner." In February 2002, the billboards went up. All messages promote the program through an emotional appeal. One tool that worked well was the bang tail, the flap on the bill's return envelope, which OPPD printed with a green power sign-up form. "The customer can rip that off and put it in with the check. We've had a lot of sign-ups with that, and it's been very inexpensive to do; it's probably the cheapest and most successful thing we've done."

Austin Energy's marketing department stepped up to the plate to ensure a proper roll-out of the wind program. The first big push was an effort to sign up well-known customers such as IBM, 3M and State Farm. More than 17 came aboard. Those who signed up early for at least 10% of their usage over a certain period of

time were guaranteed to be part of Austin Energy's advertising package. These businesses are given space for their logos and heralded as corporate champions in newspaper, billboard, and other advertising. They appear, also, in the utility newsletter, which reaches every customer along with their utility bills. "This is how we gave them credit for taking that initial step," explains communications director Ed Clark. Austin Energy allocated about $500,000 annually to the program's marketing budget. Television advertising began in April 2001 and ran through June 2001. Then, an ongoing campaign began in the fall of 2001 and spring of 2002.

"It's the first time the city of Austin has ever advertised on television," Clark comments. "We're going for broke. We want this program to be one of the most successful in the country." The ads primarily focus on customers' ability to make a significant contribution to the quality of life in the community for a very small amount of additional money. The secondary message is that the green option provides a hedge against rising fossil fuel prices. The utility may also funnel sign-up efforts into grassroots participation by civic, church and other community groups, which will receive reimbursement for customers they bring into the program.

Section II: Case Studies

Sacramento Municipal Utility District

Selling green power: Keep the marketing fresh, measure results and be willing to change course

Contact Info

Jim Burke
Program Manager
SMUD
P.O. Box 15830
Sacramento, CA 95852-1830
(916) 732-5683
(888) 742-7683
jburke@smud.org
www.smud.org/green

Company Profile

Number of customers:
Sacramento Municipal Utility District (SMUD) is the nation's sixth largest community-owned electric utility, serving 472,666 residential and 68,721 commercial customers within a population of 1.2 million.

Competitive markets:
SMUD is a non-participating municipal utility operating within the deregulated California marketplace. The green power program is subject to competition from other tag-based renewable energy providers such as Bonneville Environmental and Sterling Planet.

Territory size:
SMUD generates, transmits and distributes electric power in a 900-square-mile service area that includes Sacramento County and a small portion of Placer County.

Affiliates:
None.

Featured product/service: Greenergy

Product description — Greenergy is a green pricing product that customers may purchase for a 50% or 100% option. About 80% of the energy is generated from a landfill methane gas plant. Other sources are wind, hydro and geothermal. The mix is cost-driven to support a flat-rate pricing structure.

Potential market — All customers are eligible for the program. Targeted participants fall into a broad demographic profile that amounts to 7% to 10% of the residential customer base.

Costs —The utility sells 100% green power for $6 a month and 50% for $3 a month. The program must maintain its own operating costs.

Due diligence:

Decision-making process — SMUD's process for introducing new products starts with the utility's new business development group. They incorporate benchmarking studies and primary and secondary research into a business case that is submitted to executive management for approval. Programs that are complex in nature, first to market, or require large investments are often launched as pilot programs to minimize risk. Other programs, like Greenergy, that are consistent with the utility's strategic goals, move straight to market.

Market research — SMUD used a variety of research sources to assess the market — including surveys, focus groups and outside studies. The utility blends primary and secondary research. "We talk to customers in focus groups and surveys. We also use syndicated research studies, and then we do benchmarking. We talk to others who are in the same business pretty regularly to see what their experience has been. Benchmarking studies are usually done internally through our market research people. The more formal survey work or focus group is usually subcontracted using a variety of vendors," explains Jim Burke, Greenergy program manager.

As sales slowed in 1998 and 1999, SMUD conducted market research to see what could be done to increase customer appeal. "One of the findings was that it was easy to get people excited about green power, but they couldn't relate to what a penny-per-kilowatt hour meant," Burke relates. The other finding that came out of the evaluation was the fact that Greenergy customers wanted to see more renewable resources built. These changes were incorporated into a program redesign that featured flat rate pricing and a commitment by the board of directors to match 40% of Greenergy premium revenue with investments in new green power plants.

The program also regularly works with the research department to identify likely responder segments based on internally developed models and commercially available offerings like Prizm by Claritas.

Obstacles — "Like most Green Power programs, Greenergy struggles with how to explain and sell a complex product that costs more money and is invisible. We also struggle with keeping this product relevant in California's energy environment that changes so radically year-to-year," Burke says. "Thanks to competitive marketing budgets and strong support from management and the board of directors, we've had some success overcoming these obstacles."

"

Like most Green Power programs, Greenergy struggles with how to explain and sell a complex product that costs more money and is invisible.

"

Opportunities — SMUD's marketing services group forecasts that the utility can expand the program and achieve a 7% to 10% share of customers.

Organizational matters:
Business model — Greenergy is required to generate enough revenue to cover all program costs. It uses no public goods funding. "I look at the Greenergy program and green pricing in general as almost a perfect case study of what municipal utilities are all about. I think our board was very fair-minded when they brought it to the market. They made it optional, so the customers who support the concept can get it but those who aren't 100% behind it aren't burdened with the expense," notes Burke.

The program operates within the residential services group, but communication with other departments is key, Burke says. "Keeping the program on track requires that we keep all internal support teams up to date about our growth and needs. Greenergy staff meets regularly with marketing services, power contracts, advertising, market research, call center, and administrative staff."

Technologies/infrastructure needed — The pricing plan required incorporating a new rate option into the billing system, which involved meeting with IT, updating rate tables and adding a line item charge to the customer bill.

There were no major up-front costs. The county's energy sources are acquired on a pay-as-you-go basis. The utility guaranteed purchase of a fixed amount of energy from the methane gas landfill operation, which originally supplied 100% of SMUD's needs. The utility's guarantee was a factor in the county's decision to go forward with the project.

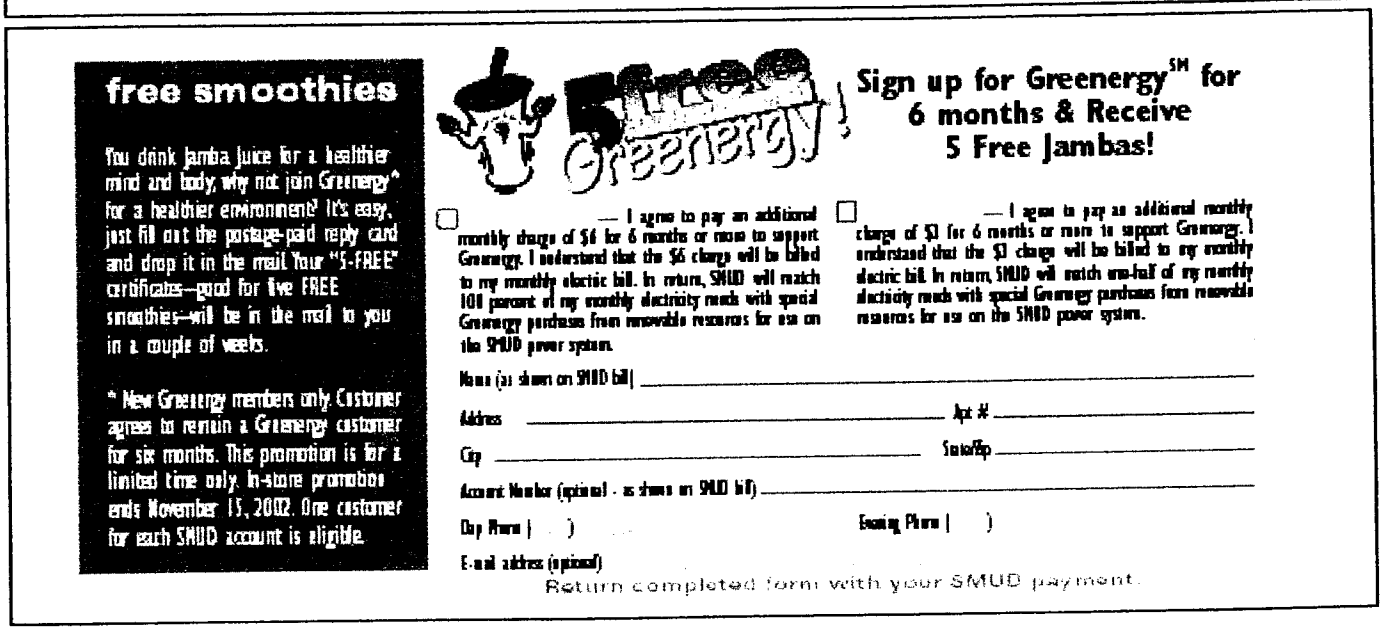
FYI

SMUD's marketing services group forecasts that the utility can expand the program and achieve a 7% to 10% share of customers.

Investment — The pre-launch process was 12 to 18 months. Total investment consisted of three or four full-time employees during 1997-1998.

Marketing/sales efforts:
The marketing department — SMUD uses teams to develop and implement marketing plans for all programs including Greenergy. Each team has representatives who serve as content experts from SMUD's customer strategy, communication and advertising services, and residential services groups. However, the 70+ person customer strategy group most closely resembles a centralized marketing department combining new business development, planning, market research, rates and sales channels staff.

The launch/roll-out — The program was launched in late 1997 when the District entered into a long-term agreement with the County of Sacramento to develop a biomass plant at a local landfill plant. Greenergy was introduced with a well-attended, joint county/utility media event in February 2000. The event showcased



The October bill insert promoted Greenergy's partnership with Jamba Juice. Similar looking promotional items were placed in Jamba Juice stores.
Source: SMUD

the new plant and offered tours to government officials and media representatives. The event attracted widespread coverage in TV, radio, and newspapers. The utility also placed ads in various media. At the same time, newsletters within the monthly customer bills carried articles and information on the program.

Ongoing sales/marketing — The Greenergy marketing mix has evolved over the years from an almost total dependence on bill inserts to a fully integrated direct marketing system that coordinates advertising, bill inserts, call center sales, direct mail, public relations and retail partnerships with local merchants. Some events are successful, but in general, "events have been pretty big black holes for us. I'm confused by that because that has been the highest performing channel for companies like Green Mountain," Burke says.

One of the most important marketing channels is the customer contact center. CSRs take part in ongoing training sessions to help them promote the program.

With a menu of about 40 programs available to customers, the promotional concept is not foreign to CSRs. "Our internal call center is one of my cheapest channels to generate sales. We have had more than 1,000 enrollments through the call center this year," notes Burke. This year, with more programs to be marketed from various internal sectors, the competition for call center time is becoming stiffer. "We have a channel management group that works with the call center and the IVR to outline month-by-month which programs will be featured." Through the IVR, customers may enroll, cancel and change levels of payment. CSRs promote the program to customers who are moving or transferring.

"With regard to the contact center or call center, we continue to offer a rewards program for people who sell the product. Internal contests and formal incentives allow CSRs to earn points toward gift certificates. The team has a green flag that is placed in agents' cubicles whenever they make Greenergy sales.

Ongoing Greenergy promotions help finalize the sales. For instance, at this time the program is partnering with the Sacramento Kings basketball team. Each customer who signs up during the promotion receives a free basketball, which helps boost call center sales.

"

Greenergy makes every effort to understand exactly what each marketing campaign costs and how many customers enroll as a result. Results are shared weekly with all marketing team members so that we can make better decisions.

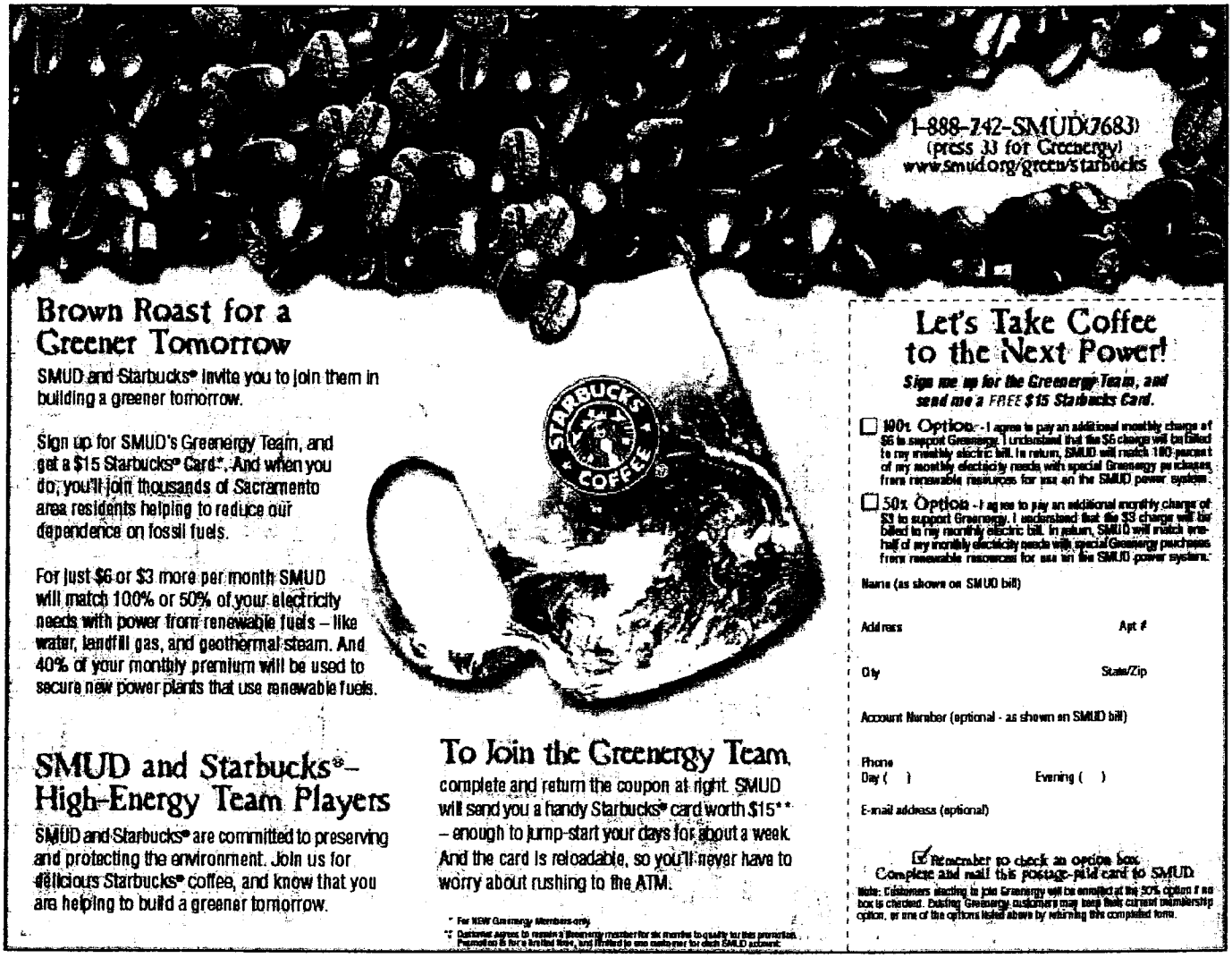
"

SMUD has developed some interesting, effective retail partnerships. Often the partnerships are selected very precisely to reach targeted customers at the right time and place. "What we're looking for are alternative channels that put the product in front of the customer in an environment where they'll consider it." SMUD's first retail partnership was with the Sacramento Natural Foods Co-op and involved Greenergy displays in their stores. The utility also has done some point-of-purchase displays with Raley's supermarket.

Most partnership marketing campaigns last three or four months, and some are rolled out annually. Jamba Juice, with 13 retail locations in SMUD's market, is a case in point. SMUD gives Jamba customers who enroll in Greenergy coupons good for five free smoothies. SMUD trained Jamba Juice employees so they would have the knowledge to answer customers' questions. Employees were given badges with quick facts to pin on their shirts, and SMUD hosted a party at the end of the campaign for the top-selling store. As with other campaigns, the program was supported by radio advertising. This program has been in place for two years and has signed up 1,200 Greenergy participants.

A similar program has been implemented at Starbucks with similar results. Those who signed up were given a $15 gift card to use at Starbucks. In another campaign, the utility handed out $15 gift certificates at the Arden Fair Mall, an environmentally oriented shopping center with a solar-covered parking structure. A recent Christmas campaign at the mall garnered 300 sales.

In all marketing efforts, accountability is very important, Burke says. "Greenergy makes every effort to understand exactly what each marketing campaign costs and how many customers enroll as a result. Each enrollment is coded by tactic. Results are shared weekly with all marketing team members so that we can make better decisions. It's an imperfect science, and there can be some ugly findings, but understanding marketing effectiveness makes it much easier to improve program effectiveness," Burke continued.



SMUD had a partnership with Starbucks. Greenergy was promoted in Starbucks stores. Source: SMUD

In short, what has worked best for marketing Greenery are:

- Bill package efforts including bang tails (a tear-off coupon on outside of return envelope) and full-color or two-color bill inserts, which are useful to highlight and add variety to the message;
- Articles in connection with the newsletter, which add interest and topical information;
- Call center contests and incentives for customer service reps that sell Greenergy;
- Targeted direct mail;
- Retail partnerships with local merchants like Starbucks, Jamba Juice, Arden Fair Mall, Sacramento Natural Foods Co-op, and The Sacramento Kings;
- Third party endorsements — The Greenergy program is certified through the Center for Resource Solutions (CRS) and has the right to use the Green-E logo in advertising efforts; and
- Flexibility and constant testing; SMUD regularly tests appeals, offers, list segments and production levels.

Program assessment:

Goals — Greenergy goals include:

• To expand the program from 3.8% to 7%-10% of the residential customer base by 2006, an increase of 16,307 customers.
• To bring balance to the generation mix and to provide customer choice.
• To make renewable energy efforts at SMUD more visible and attractive.

Results — Promotion of Greenergy accounts for a public awareness level in the mid-40% range in SMUD territory. By December 2002, the program had enrolled more than 18,400 residential and 31 commercial customers. This represents a phenomenal 77% growth rate in 2001. Revenue for the year was about $960,000. According to NREL, Greenergy is now the third-largest green pricing program in the country. Burke attributes the growth to executing marketing fundamentals well, good research that was incorporated into the product offering and was supported by diligence in planning. "It helped us be a good choice for customers who were faced with the California energy crisis and helped us overcome the traditional green activist stereotype."

Payback period — With no up-front investment there was no payback period.

Advice/lessons learned:
"Every year is different. Where I see that is in the appeals and the way we sell the product. When you have that accountability you know what's working and what's not, it changes from year to year," Burke says.

He also says, "Our green power consumers don't respond very well to pieces that are very 'corporate' in appearance. Really simple, grassroots appeals have been working better."

In short:
• Measure results — and expect them to change over time.
• Test design formats; SMUD found that fancy, corporate appeals suppress response.
• Strive for a diverse marketing mix — no one channel or appeal works forever.
• Look for marketing opportunities within the utility — other programs or departments who can help your program grow.

Discontinued products/services — At SMUD, products and services are routinely discontinued or redesigned after reaching saturation level.

MADISON GAS & ELECTRIC

Customers ask for 'dark green' power

MGE's new wind farm fully subscribed within six months

COMPANY PROFILE

Company profile: Number of customers: Madison Gas & Electric (MGE) is an investor-owned utility that generates and distributes electricity to more than 128,000 customers (111,000 residential and 17,000 commercial). MGE also transports and distributes natural gas to nearly 123,000 customers.

Competitive markets: Wisconsin is a regulated market.

Territory size: The electric service area encompasses 250 square miles in Dane County. Natural gas distribution covers 1,375 square miles in seven counties.

Affiliates: MGE Energy is a holding company formed in August 2002. Its principal subsidiary is Madison Gas & Electric. Newly formed affiliates are MGE Construct, which provides construction services for building new generation; MGE Power, which purchases real estate and new generating assets and will sell electricity to MGE through long-term lease agreements; Central Wisconsin Development Corp., which provides planning, financing, property acquisition and related services that promote business growth in MGE's service area; and MAGAEL, which holds title to properties acquired for future utility plant expansion and non-utility property.

Featured product/service: Wind Power

Product description — The green pricing program consists of 100% wind power from an MGE-owned and operated wind farm in Wisconsin. The 600-acre farm has 17 660-kW Vestas wind turbines. The farm's annual output is about 23 million kWh, and its total capacity is 11.22 MW, which is fully subscribed.

Potential market — According to Laura Williams, market development manager, characterizing potential customers was difficult. Based on market research, program leaders believed potential customers would have a higher-than-average income and education level. Beyond that, they didn't do much targeting because they were seeking such a high participation rate. "We needed to reach all of our customers," she explains.

Costs — Customers pay 3.33 cents above the normal rate per kWh for green power, which is sold in blocks of 150 kWh per month for $5. The utility finances the wind turbines for about 9 cents per kilowatt hour but only passes on 3.33 cents of that cost because the federal production tax credit results in the utility netting out 4.0 cents per kWh as the cost of generating those kWh using the latest technology. "Since we had to increase the availability of energy anyway, we didn't want to pass the entire energy cost onto our customers," Williams says.

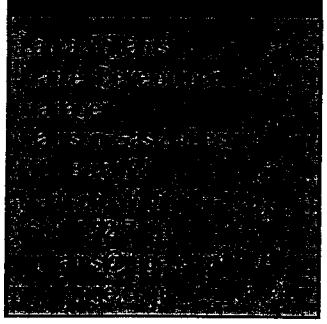
Due diligence:

Decision-making process — In 1997, MGE began a three-year planning process, first investing time researching customer opinions. Much of the early work was performed by MGE's electric marketing and planning area, which was replaced in a company reorganization. (There are now divisions in marketing, electric pricing and gas pricing.) The final recommendation came out of the marketing department, with input from electric pricing, and was sent to upper level management for approval. They decided to build the wind project and sell the energy through a green pricing rate as opposed to blending it into the general rate structure for all customers.

Market research — In customer satisfaction surveys, focus groups and other customer research, customers repeatedly said they wanted MGE to invest in renewable energy as part of its supply mix, Williams says. Further research revealed that customers were referring to "dark green" energy, which typically is solar or wind power rather than combustion-based sources like biomass, which involve some burning. Research into the economic feasibility of various energy options narrowed it to wind, "because it's the lowest priced option. We could afford to offer it in large chunks compared to [other renewable resources]," Williams relates.

The process involved a lot of telephone and mail-based product development surveys. "We made sure that these were statistically valid samples of our customer base. ... [Rather than segmenting,] we did random surveys and then we were able

CONTACT INFO



to segment their responses by key demographics." Typically these surveys were sent to combined gas and electric territories. All the surveys were generated in-house.

Obstacles — The wind farm was built outside MGE's territory in Kewaunee County, a rural and suburban setting about 150 miles from Madison, to take advantage of the best possible wind resources. As such, the wind farm's local community didn't know or trust MGE, which presented the largest obstacle of the project. Resistance from some neighbors centered on potential negative impacts such as noise. "We were an unknown quantity to them, so we had to build credibility and trust in the community by doing all the outreach we could, attending meetings and [keeping a high profile]," says Williams, adding that project leaders were careful to lend an ear to all sides of the story. "You have to attend to all of the parties' interests, listen, find answers and constantly maintain the communication channels." Not only were MGE management, engineers and marketing people often onsite, but an MGE representative actually moved to the area and lived there for the duration of the planning and building process to maintain constant communication with those who were involved.

Opportunities — Because of its advanced state of development, wind power's cost per kWh is relatively low compared to other renewable options. "It's affordable for our customers," Williams says. "We have earned our allowed rate of return on this sort of capital investment, like any other power plant. And it improves our image in a community that is very environmentally aware, as our customers are."

Organizational matters:
Business model — Rather than creating a new unit to oversee green power, MGE leaders pulled together a cross-functional team to administer all aspects of the project. Although MGE has a holding company structure now, it didn't at the time the project was launched, so functions under the regulated utility. The project was approved by the Public Service Commission of Wisconsin.

Technologies/infrastructure needed — "We had to make a couple of small programming upgrades to our mainframe billing system to be able to do some reporting. But it didn't entail much at all. And we have an Access database to track the marketing participation and the [customers on the waiting list]."

"

What's the value proposition for voluntarily paying more for your electricity? It's not something we had to face before.

"

Training customer service reps was a big issue. "It was a new business proposition. Customers typically don't have the ability to choose their source of electricity, and that was the real education for our customers as well as our customer contact staff. What's the value proposition for voluntarily paying more for your electricity? It's not something we had to face before," Williams explains.

In addition, building the wind farm required an MGE engineer to work full time with the turbine vendor. Other MGE professionals invested time in overseeing construction, hiring road builders, foundation builders, trucking companies, etc. Also, because the utility built the wind farm in Wisconsin Public Service Corp.'s territory, MGE had to coordinate with that utility to get the electricity onto the grid and pay transmission access fees.

Investment — MGE invested about $14.5 million in the plant and another $1 mil-

Madison Gas & Electric Wind Farm Facts

Project description	MGE built and operates a wind farm consisting of 17 turbines (each 660 kW) to provide renewable, Wisconsin-based electricity. MGE customers choose to purchase the wind energy.
Total cost	$14.5 million.
Annual energy production	23,000,000 kilowatt-hours annually—enough electricity for roughly 3,300 homes (assumes 98% availability and 23% capacity factor).
Expected life of turbines	30 years.
Site location	In the townships of Lincoln and Red River in northwest Kewaunee County.
Site landowners	Seven landowners host the turbines.
Site acreage	30.5 acres are leased within seven parcels totaling 603 acres. Of the 30.5 acres, 7.4 acres are used for the turbine foundations, transformers and access roads.
Site description	Agricultural crop land.
Grid interconnection	690-volt cables to 750-kVA step-up transformers to 24.9-kV collection voltage underground to 69-kV overhead transmission line.
Average site wind speed	13 to 14 mph (at 110 feet aboveground).
Wind direction	Predominantly from the southwest to northwest.
Turbine design	Vestas V47-660 kW pitch-regulated wind turbines with OptiSlip and OptiTip. These are horizontal axis, up-wind turbines. OptiSlip generator system allows rotor and generator to vary their RPM by up to 10% during wind gusts. This minimizes wear and improves quality and supply of electricity produced. OptiTip pitch-regulated system controls blades so they are always tilted to the optimal angle for wind conditions. Optimizes production and minimizes noise level.
Turbine and rotor manufacturer	Vestas Wind Systems A/S, Lem, Denmark
Turbine weight	20 tons (complete nacelle without rotor).
Rotor design	Three 77' blades (154' rotor diameter) constructed of fiberglass reinforced epoxy and other composite materials.
Rotor weight	7 tons.
Rotor RPM	8.5 revolutions per minute.
Gear box	High-performance planetary/helical.
Brake system	Primary brake: rotor pitching mechanism (feathers blades). Secondary brake: hydraulic disk brake.
Yaw drive system	Electric motor driven with wind direction sensor and cable dewinding control. Braking accomplished through friction pads.
Generator	Single-speed, variable slip, asynchronous, four-pole induction generator.
Generator nominal voltage	690 VAC.
Control system	Computer-controlled, automatic, independent operation and remote supervision from operations center in Madison. Microprocessor-based monitoring of yaw, hydraulic, ambient conditions, rotation, generator, pitch system, grid, power factor correction, thyristors (generator cut-in) and remote monitoring.
Integrated lightning protection	Lightning protection system consists of lightning receptor points, conductors, grounding system and surge protection for every subsystem.
Tower design	Tubular steel tower assembled in three sections with internal safety ladder and nacelle access.
Tower dimensions	Height is 213' and diameter is 12' at the base and 6.5' at the top.
Tower weight	73.5 tons.
Tower manufacturer	Beaird Industries, Shreveport, La.
Foundation design	Concrete pier 15' to 30' deep with 14' external diameter. Anchor bolts attach tower to the foundation.
Rated power output	660 kW at 33 mph (optimal operating wind speed).
Cut-in wind speed	9 mph.
Cut out wind speed	56 mph.
Noise level	47 decibels at 800' downwind.

lion in marketing costs and labor. "We spent a total of about $350,000 [in marketing costs] to fully subscribe all the energy we had to allocate from the project." Construction began in December 1998 and MGE needed to have the energy fully subscribed by the summer of 1999 to ensure all its costs would be recovered.

Marketing/sales efforts:
The marketing department — Within MGE's centralized 50-member marketing department, corporate communications is responsible for mass media and other ad development. Other work units handle market research, customer relationship management, economic development, key accounts, community relations, media relations, the Web site and other related functions. MGE also uses an outside ad agency to develop marketing material. Product or project managers use the resources of corporate communications, which help them integrate their products into the bigger picture for across-the-board brand consistency.

The launch/roll-out — "The decision to build the wind farm and present a green pricing option to customers all happened very fast. We did not make any commitments to our customers or begin awareness-building until we got all the necessary permits and approvals to go forward with the project, because we didn't want to create false expectations among our customers. We finally got our last permit in December 1998, and began our marketing campaign in January 2000."

In planning our marketing we tried to bring in allies from the community — environmental groups, community neighborhood groups, others who were champions for this — to help spread the word.

There was a fixed amount of energy available and thus only a portion of interested customers could come onboard as subscribers. In contrast to other, ongoing marketing programs, MGE's Wind Power was basically a one-time marketing campaign.

"In planning our marketing we tried to bring in allies from the community — environmental groups, community neighborhood groups, others who were champions for this — to help spread the word and help us plan the marketing campaign," Williams says, adding that the effort earned points for being inclusive. "We were able to leverage those contacts to reach more customers and to improve our credibility with the product."

MGE held a kick-off open-house event followed by a series of four more celebratory and informational events, one in conjunction with a popular annual water sports convention. "We had a big celebration with a lot of colorful exhibits and attracted a lot of press coverage. We were basically saying here it is, now let's all step up to the plate." The campaign was anchored by direct mail and bill inserts. The utility sent out bill inserts for five months starting in March 1999.

The majority of sales came in response to billing inserts but the direct mail pieces had the highest rate of return, Williams says. A series of three direct mail pieces targeted geographically by neighborhoods where incomes and education levels were higher than average provided much more in-depth information to about 10,000 recipients. But the bill inserts provided more convenience by making it easier for customers to sign up.

All the energy had to be spoken for by completion of the wind farm project in July 1999, just six months after MGE obtained the final approval and go-ahead. The marketing efforts were successful, with all 11.2 MW fully subscribed and a

waiting list of interested customers to boot.

MGE spent about $350,000 on all the marketing — ad development, media time, displays, printing, etc.

Ongoing sales/marketing — Because the utility had a full subscription of 5,000 program participants by July 1, 1999, the marketing campaign ended, but MGE continues to maintain a low-key awareness campaign. "Twice a year we put information in our bill inserts; we remind them they can get on the waiting list for wind power." However, the waiting list already has 50 customers on it, so marketing efforts really are kept to a minimum.

Program assessment:
Goals — The original goal to have the power from the wind farm fully subscribed has been met. Now MGE is "looking toward our next projects with green-priced energy — whether we build another increment, whether we buy green energy from a third party, whether we invest in a different product like biomass. We have an internal assessment going on right now to make those decisions. If we were to, for instance, double our capacity or the energy available through our wind farm, we think we would have to spend an amount similar to what we spent the last time to gear up that machine again and increase our visibility. It probably wouldn't be as expensive per final sale but it would be significant," Williams says.

"One of the things that we were most unsure of when we began billing our customers was how long they would continue to voluntarily buy green power and whether there were issues that would cause them to opt out and end their participation, such as rate increases or negative news about the company, etc. One of the things we have been studying is churn rate and trying to identify issues that affect [participation]. And we found that it's a very stable program."

Results — The energy output for the wind farm was fully subscribed with 5,000 residential and 93 business customers who pay the same price premium as residential customers. Commercial customers have a different marketing program and the minimum purchase amount is about three times the residential amount. "It's been a hugely successful product introduction. It provided MGE value beyond the economic realm. It has been very positively received by most of our customers and has really served to reposition us" in the community, Williams asserts.

Payback period — "We see the wind farm as another power plant, so we have an amortization schedule, a book value for the plant, and we want to make sure of the rate of return over the life of the project."

Advice/lessons learned:
Williams advises other utilities to take advantage of the experience of peers. "We did a lot of calling around and communicating with others who had been offering green power options, both from the standpoint of building plants and marketing product."

If she could have done anything differently, says Williams, the utility would have been ready with something to offer those customers who were left out of the

Wind Power program. "I would have had more of a plan earlier as to what we would do next in order to capitalize on the momentum. We should have been looking harder at taking the next step after building such a level of awareness and goodwill." The utility is looking into options for these customers.

Discontinued products/services — There is no definite product life cycle plan or hard division among many products and services at MGE. Often they roll into other programs or progress naturally according to customer needs.

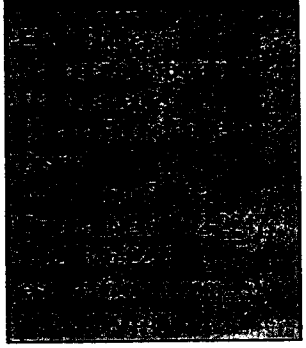
SECTION III: OTHER CASE STUDIES

Editor's note: The following case studies on utilities' green power programs were researched and written between 2000 and late 2002, and appeared in earlier Chartwell publications.

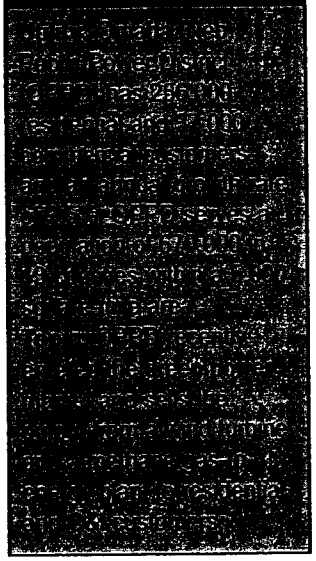
Omaha Public Power District

Omaha Public Power District goes for the "emotional, non-utility" angle in selling green power

Contact Info



Executive Summary



Omaha (Neb.) Public Power District (OPPD) recently entered the renewable energy market with a 660 kW wind turbine and a $4 million landfill methane gas-to-energy plant. The power produced from these two sources, 27.1 million kWh, is available for purchase by residential and commercial customers.

Residential customers can sign up for one of four levels of participation, from $4.50 to $30 per month. C&I customers pay a flat fee above their standard charge. They have three levels to choose from — 25% (.75 cents per kW); 50% (1.5 cents per kW); and 100% (3 cents per kW), also known as the "green partner" level.

Determining the market

"We did focus groups and surveys with our customers asking them if they would be interested in green power or renewable energy and if they would be willing to pay more for it," says Elliott Spilker, OPPD's manager of the program. "Our studies have shown what the national studies have shown. There's about 60% to 70% of the population that says 'yes, we're interested in renewable energy,' but when you put some dollar values in front of them, the number [interested] drops substantially. I think our research showed about 10% would be willing to pay more. Nationwide it's usually around 2% to 4%." Most of the research was done on residential customers.

The utility spent three years researching and planning a renewable energy program, but two manufacturers provided an impetus to roll it out. One of these is a pole manufacturer, Valmont Industries of Valley, Neb. Valmont had designed a new, simplified wind energy structure that is modular and requires less space. Valmont approached OPPD with the idea of installing a turbine, which would reduce the utility's costs. OPPD also was approached by a local landfill company with a favorable proposal for a landfill gas project.

Senior management, the elected board of directors and the electrical production staff made the ultimate decision to move forward with the projects. Factoring into these decisions were customer requests, the good track record of the wind and landfill resources, and a wind power study by the state of Nebraska, chaired by an OPPD staff member.

"They tested wind sites across the state, and that was a big component in determining if it was viable. Actually our particular area is not in a very good wind area. We're a class three; class five is the best. So our percentage of utilization will not be as economical for us as someone in class five. Our customers who were asking for a renewable energy program influenced the decision-making process. As we had been telling people, if we get enough interest, if we get enough sign-ups, we'll put more renewable energy up," explains Spilker.

"We have a little different situation in Nebraska in that although we don't have a PUC, we do have a Power Review Board. Their mandate to public power is that we have to produce power in the cheapest form possible. So when we do our integrated resource plan and submit it to the state, obviously windmills and landfill gas don't meet that criteria. We have to get special permission from

them to put these projects up, and tell them that we think there are enough people that are going to pay extra to fund the projects, according to our research."

Focus groups, customer surveys, renewable energy conferences and studying other utility programs provided useful information for planning the program. In addition, the utility's annual customer satisfaction phone survey was expanded to include questions pertaining to renewable energy. The focus groups were done in-house, but the ongoing customer surveys are done by outside marketing research firms, which bid annually on the contract.

Obstacles and opportunities

Setting the rate and designing the advertising campaign were the greatest challenges in organizing the program.

"We had a very fast track. The rate had to be designed in two weeks, so we had to work closely with our rate department to design something that they could live with and something we could sell the customer. They wanted to use more of a 'utility' approach, where we would charge a flat fee or an amount per kilowatt. But our market research shows that the residential consumers preferred a flat fee, whereas the commercial customers told us they preferred a variable rate based on their kilowatt usage. That's one reason we ended up with two different styles of rates, because our focus groups told us they wanted both," notes Spilker.

"We have quite a few people signing up at what we call the supporter, promoter, patron and sponsor levels. We wanted to get away from equating it to kilowatts because — [as we learned] through our research and at green power conferences — customers do not understand kilowatts. So we wanted to put a name to each level and equate that to the environmental impact. As an example, our supporter level keeps one ton of coal in the ground for future use. It's equivalent to planting three-fourths of an acre of trees. It has the environmental impact of not driving your car for 3,600 miles. So we will be using those kinds of tag lines. That's the $4.50 lowest level.

"We didn't put any names on the commercial levels," Spilker continues. "There's a little bit more sophistication with these customers. But we're still going to equate the rate with the environmental impact; we'll just be putting it in larger perspective. We're using the equivalent of ... trees."

While the residential program is offered "because our customers asked for it, commercial is a little bit different animal. In talking with commercial customers in focus groups, there was more of 'What's in it for me? Why should I sign up for this, why should I pay more for my electricity?' And we've come up with some really good tag lines that will help them understand why they should be green power partners with us."

OPPD is just beginning to assess opportunities for commercial customers. "We have several large customers that have approached us with building wind farms specifically for them. We haven't done that yet." Industry standards require some businesses to purchase renewable energy. "To get a rating, they have to meet certain criteria. To keep their rating, especially if they want to sell products in Europe, they have to have 'x' amount of their energy coming from renewable energy sources."

Technologies/infrastructure

Valmont Industries supplied the site and the tower for the wind turbine, which lowers the initial cost for this wind project. OPPD has a contract with

Valmont to supply power. The new pole is designed with an elevator-type mechanism that clamps on the pole and hydraulically lifts the wind turbine equipment into place.

"They're one of our larger customers. They've come up with this new design for the windmill pole. It doesn't require a crane to put the generating unit on top of the [tower], which reduces the capital expenditure of putting these windmills up." The wind turbine is located next to the Valmont manufacturing facility, which enables the company to test and monitor the equipment. The 660 kW wind turbine was purchased from Vestas in Denmark. Valmont's proactive approach helped push the project along. Once the decision was made, the wind turbine was installed within three months.

The methane gas project was constructed in about nine months.

"The owner of the landfill is [Houston-based] Waste Management Inc. They have 50 or 60 across the country. They own the gas and the land. We own and built the structure, and we bought the actual generation equipment. They supply us with the gas, and they maintain the engines. We have four 800 kW engines in the building running off the methane gas. That's a huge project compared to the windmill. The windmill is only going to produce [from projections] about 1.7 million kW a year, whereas the landfill project, if it runs 24/7, will produce about 26 million kW a year. It produces a lot more electricity and produces it a lot cheaper than the windmill."

Billing for the product was a matter of adding a line item for green power onto the bills.

Expenditures for the landfill project were about $4.5 million and for the wind turbine about $625,000. Advertising and promotion amounted to $200,000. Offsetting some of the cost was a $50,000 grant from the DOE for promotion and education of renewable energy. The wind project, from design to construction, took three to four months. The methane gas project took less than a year to from design to completion.

FYI

Expenditures for the landfill project were about $4.5 million and for the wind turbine about $625,000. Advertising and promotion amounted to $200,000. Offsetting some of the cost was a $50,000 grant from the DOE for promotion and education of renewable energy.

Marketing/sales efforts

A staff of four carries out marketing of all OPPD products, including green power, surge protection, payment protection and three pilot projects rolling out in 2002.

"The last four months, we've been extremely busy with green power — producing all the brochures, the inserts and coordinating everything," Spilker says. "We're responsible for the whole project management side as far as customer interface, sign-ups, advertising, how we're going to bill. The rate design was also part of our project scope."

The marketing department communicates its needs to the corporate communications staff, who coordinate advertising/marketing with an outside agency. Then it comes back to marketing for final approval.

"We had a lot of design changes with our green power brochures. We had to have them redesigned four times before we got what we wanted. We were looking for an emotional, personal appeal. As a utility, we tend to be very conservative, very black and white and institutional. We were trying to get away from that. Everybody told us at the green power conferences we've attended that it's an emotional decision, it's not a nuts and bolts kilowatt issue.

"And for commercial [customers], we think that's going to be a double-edged sword. We think it will be somewhat of an emotional issue for certain owners, such as small business owners. For the larger customers, we think it's

going to be more of a business decision [revolving around the ability] to market themselves as a green partner, to enhance their image. For commercial customers at the 100% level of participation we have a special logo they can put on their door to advertise this called the '100% green power partner.' There is a marketing tool we are copying from another utility, called a green card, that will be used by residential customers to receive discounts from merchants who take part in the program. We think this will boost commercial sign ups."

OPPD has just started marketing specifically to commercial customers, although it blanketed the territory with radio ads, billboards and bill inserts in its general campaign, which has attracted some commercial customers. A brochure was set to be printed and mailed in spring 2002. It will serve as a bill insert to targeted business customers. Selling points for joining the green program include distinguishing a business from its competitor; use of the 'green partner' designation in the company's advertising; and promoting the business as a good neighbor.

"We're just kicking off the commercial side. We've been actively campaigning the residential side since January 1, but we had not solicited commercial customers until [April 2002]," notes Spilker. "We think the green card will be a positive inducement for commercial customers to sign up because we'll be putting their names in the paper and other publications, and they will get free advertising." The utility has sent out press releases and also has a group of account executives who will promote the program through personal visits to the top 300 customers.

Sixty-second radio spots started in January 2002 with the theme "become a green power partner." In February 2002, the billboards went up. All messages promote the program through an emotional appeal.

"We think that obviously this advertising will spill over into the commercial. It's the same message for both. We're going to target those commercial customers that we know have signed up in other areas [of the country]. We've gone on the Web and looked at other utilities and who they have signed up as commercial customers. We know who they are, like Kinko's, which would not fall into [the category of] our top 300 [customers], but they have a lot of commercial outlets here in town. We'll be making personal visits to those customers that have signed up for green power [in other utilities' territories]."

One tool that worked well was the "bang tail," — the flap on the bill's return envelope, which OPPD printed with a green power sign-up form. "The customer can rip that off and put it in with the check. We've had a lot of sign-ups with that, and it's been very inexpensive to do; it's probably the cheapest and most successful thing we've done."

FYI

The first-year goal was to attract 2,500 residential customers at the basic level. That goal was realized by the end of March 2002. So far about 87% are signed up at the lowest level; 8% at the next level; 3.5% at the next level; and a 1.5% at the highest level.

Program assessment

The first-year goal was to attract 2,500 residential customers at the basic level. That goal was realized by the end of March 2002. So far about 87% are signed up at the lowest level; 8% at the next level; 3.5% at the next level; and a 1.5% at the highest level.

With commercial customers coming on board, the number of participants needed to sell out the program — 10,000 residential at the lowest level – will be fewer.

"We didn't set ourselves a goal for commercial. We have no idea what the response will be. We think all it will take is a couple of large customers to say they want to be on board, and we'd be sold out."

There have been indications that commercial customers of all sizes will participate, giving the program a boost. "I talked to one of the largest banks in town last week that was very positive about signing up. When somebody like that signs up — that's using 10 million kWh a year — it isn't going to take us long to sell out," relates Spilker. "The commercial customers are very key to making the plan successful. That's why we're working so hard on our brochure to make sure we get the right message across about what it's going to do for them."

The payback period will depend upon the levels of customer participation. "We need a total of 10,000 [at the lowest level] to sell out on the residential side. My personal opinion is that we will never get that far unless we get commercial customers on board. It's a five-year project. If you had all of them sign up at the $30 level we'd only need 2,500 [customers altogether]."

Advice and lessons learned

In assessing implementation of OPPD's green power program, Spilker recommends, "Make sure that your advertising, your corporate communications and your rate department don't let you make it a 'utility' program. Make sure you're truly marketing this product. You have to look for the emotional, the non-utility angle. It's important to break out of the mold. It helps to go to some green power conferences and find out what's working, because we copied a lot of our program from other success stories. We went to couple of conferences, found out what was working, what was not working and how much people were spending — which we thought was way too high — for acquisition costs."

Another point Spilker makes is that "you have to get the call center on board. We spent extensive time with our call center last year. We brought in a consultant, Barbara Burke & Associates of Northfield, Minn. We had had lot of resistance from our call center representatives; they don't want to be turned into telemarketers. The consultant worked with them over several months on what we call an offer campaign rather than sales campaign. We're not asking them to sell but simply to ask if customers are familiar with the green power program. That has been instrumental in the success of not only the green campaign but also our surge protection campaign. Barbara Burke & Associates, along with our call center manager, did a fabulous job in making our call center successful. They really turned the atmosphere into an environment where we can promote products and services."

GREEN POWER EMC

Co-ops lead the way in offering green power in Georgia

CONTACT INFO

Green Power EMC
c/o Coweta-Fayette EMC
P.O. Box 788
Newnan, GA 30264
(770) 502-0226

Executive Summary

Energy cooperative Green Power EMC is a consortium of 13 Georgia electric cooperatives that have joined to create a common cooperative to bring renewable energy to their customers.

Topic: The first known statewide plan to bring green power to Georgia was unveiled by Green Power EMC in November 2001. The group will coordinate the generation of electricity through renewable resources; it will aggregate these resources — primarily biomass, solar and wind power — and connect them to the electric grid for distribution to the 13 cooperatives who will sell them to their members. Each co-op will formulate its own plan. For the first project, two of four proposed landfill sites are starting construction and expected to begin operating by October 2002, with the remaining two to follow. More than $60 million in electricity generation, representing 13 megawatts, is expected from these biomass landfill projects over the next 15 years.

The first utilities to offer Georgia consumers green power will be 13 of the state's cooperatives. In 2001, these 13 cooperatives joined forces to create a common cooperative, Green Power EMC. The venture not only is unique to the state of Georgia, but also is an unusual undertaking for any group of cooperatives.

The role of Green Power EMC is to:

- coordinate the generation of electricity through renewable resources;
- aggregate these resources — consisting of biomass, solar, wind power and hydroelectric; and
- connect them to the electric grid for distribution to the 13 cooperatives.

The new co-op's first effort involves the construction of two biomass landfill projects, which are expected to commence power production operations by October 2002; two additional landfill sites are to follow shortly. More than $60 million in electricity generation, representing 13 MW, is expected from these biomass landfill projects over the next 15 years.

"The main purpose of Green Power EMC is to be the entity that can aggregate these resources. Right now we're starting out with biomass. Our plan is to add various other options to that mix — solar, wind, whatever technologies are in the marketplace — and then allow our members, who right now are EMCs, to be able to sign up to take the energy from those resources and then provide that to their own membership," explains Michael Whiteside, president of Green Power EMC.

Green Power EMC is run by a board of directors who are currently the CEOs of the member EMCs. Whiteside, CEO of Coweta-Fayette EMC, was elected as the chairperson of the organization. Coweta-Fayette EMC serves 60,000 customers in its territory south of Atlanta. Joe Cade, CEO of Flint Energies in Reynolds, is the secretary-treasurer.

Customer research provided the go-ahead

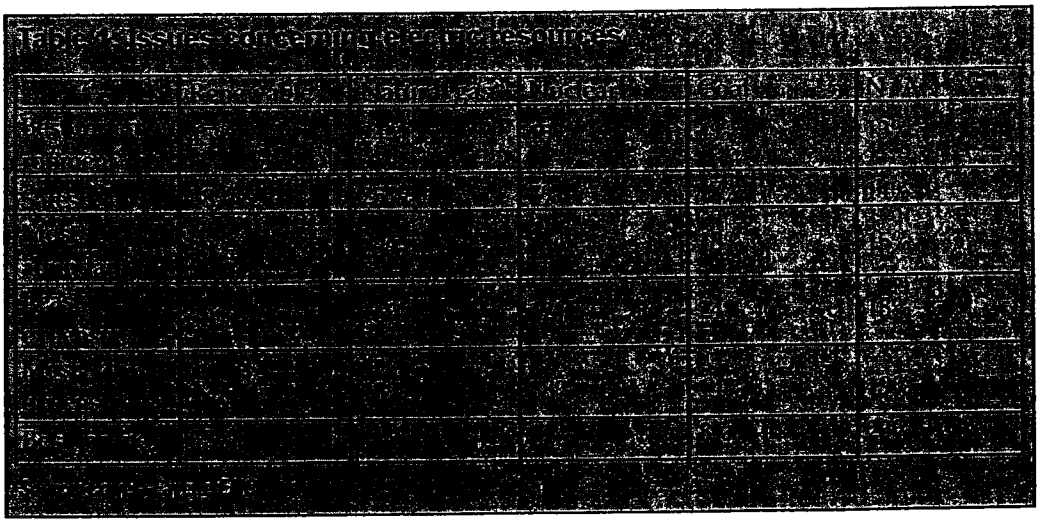
Customer research that was conducted independently by some of the EMCs prior to the start-up of Green EMC showed widespread acceptance of the concept. Results of three EMC surveys were positive and gave the others "a good feeling that this was something their members would like to participate in," says Whiteside.

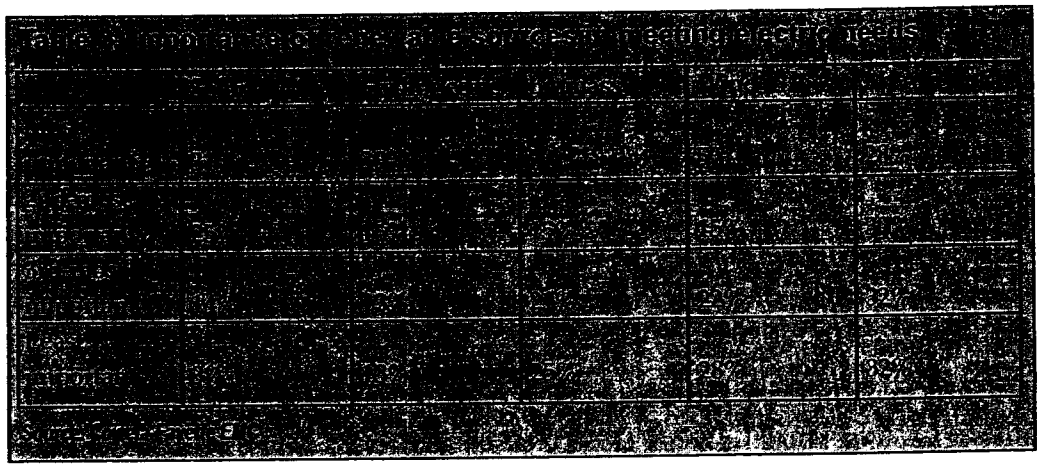
For example, Coweta-Fayette contracted with an outside consultant to conduct telephone interviews with 400 randomly chosen customers in October 2001. Customers were asked what they thought was:

- best for the environment;
- safest;
- most abundant;
- least expensive;
- most expensive; and
- best for them.

The results are in Table 1. On all attributes, respondents favored renewable resources. However, there was a significant number of members who had no opinion for each attribute or issue mentioned, offering the EMC the opportunity to educate members.

Coweta-Fayette EMC collected this data via telephone interviews with customers in October 2001.



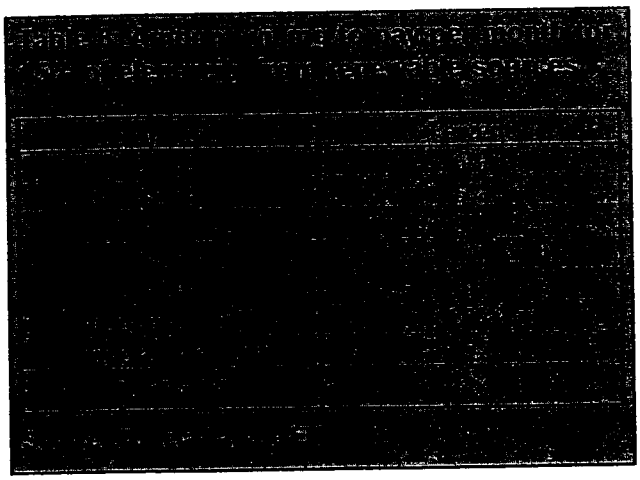


Next, members were asked to rank four renewable sources of energy — solar, hydroelectric, biomass and wind — in terms of which was most important in meeting their electric energy needs. Results, shown in Table 2, illustrate that solar and hydroelectric are the most important perceived sources of renewable electricity that respondents say will meet their needs well. Again, there is a large percentage with no opinion or who say they don't know, again presenting the need for education.

Then, members were told that energy from renewable resources both costs more and is in shorter supply than energy from other sources and were asked how much they would be willing to pay per month to get 15% of their electricity, which they were told was enough to run a refrigerator and small kitchen appliances, from renewable sources. Results are in Table 3. Just over half said they'd be willing to pay at least $1, and 35% said they'd pay $5 or more. Whiteside was surprised at these results. "I would have expected maybe 5% or 10% [willing to pay more]. Of course, we know that doesn't necessarily mean they're going to sign up. But what we wanted to find out was whether we had the level of interest we needed" to proceed with the landfill projects, he says.

Finally, members were asked how important it is that the EMC develop Georgia's resources before going out of state for these resources; 63% said very important, 22% said somewhat important, 9% said not very important, and 6% said not at all important.

Coweta-Fayette's plan is to sell the generation in blocks of 150 kWh, repre-



The EMC's research showed customers were willing to pay extra for green power.

senting about 20% of a typical home's usage. Each customer would be permitted to buy as many blocks as they wish at $3 to $5 each. Each EMC can offer the green power in its own way.

EDI ready to roll into landfill

Leaders of the initiative had been working since spring 2001 to organize the project and secure vendor contracts, and the new business was incorporated in August. By December 2001, Green Power EMC had executed a contract with Energy Developments Inc. (EDI) of Houston to develop the biomass generation site. Serving as a consultant on the project is Apogee Interactive. At the time Chartwell spoke with Whiteside in late December, Green Power EMC was waiting for final approval from lender Rural Utilities Service (RUS) for financing construction of the generation sites.

EDI will begin the work necessary to build generators at four landfill sites in north and middle Georgia. "We still have about a year's lead time to get the sites prepared, the engines delivered, everything hooked up, and then we also have to do some preparation work to make sure we can get the generation into the transmission grid," explains Whiteside.

One of the projects is at the Richland Creek Road landfill in Buford, Ga. Details include the following:

- Power generation capacity — 5.2 MW;
- Primary fuel — landfill gas;
- Plant type — reciprocating engine;
- Power purchaser — Green Power EMC;
- Start of operation — 2002.

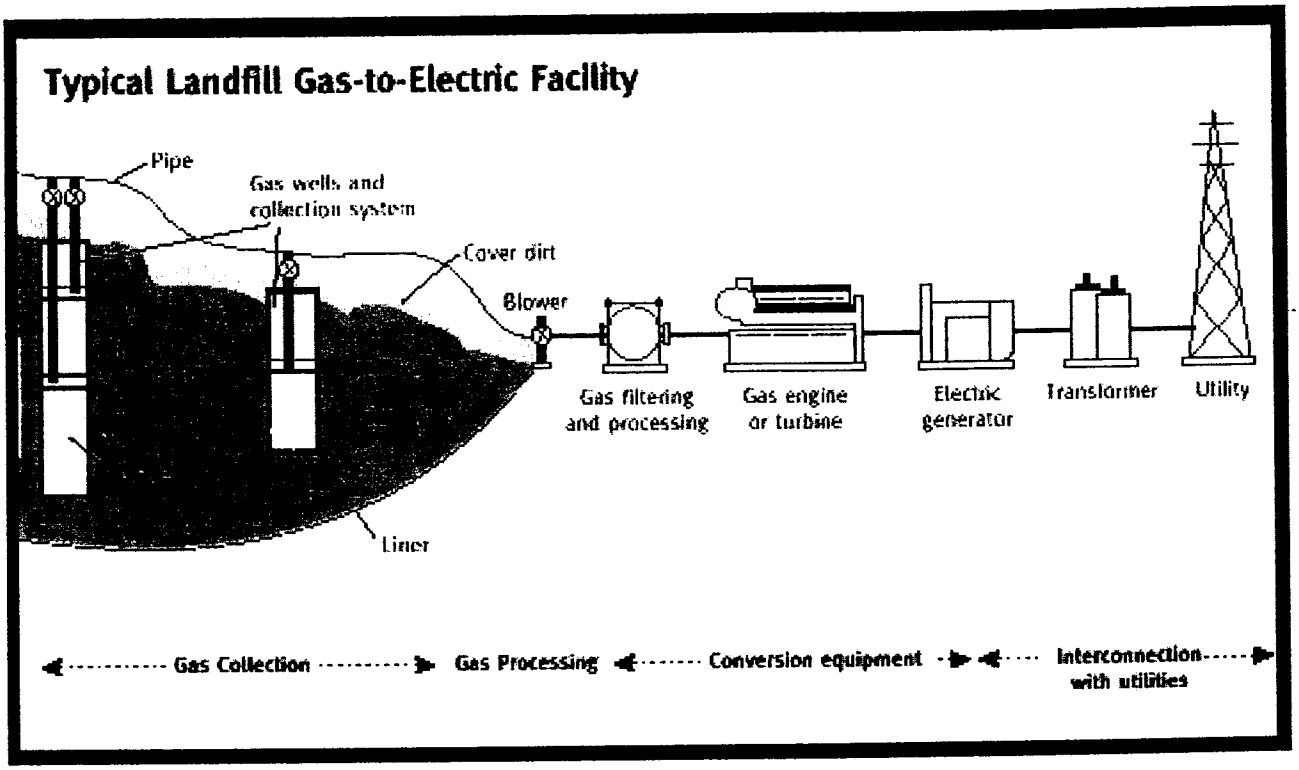
Landfill gas will be extracted from the landfill site, processed to remove moisture and particulate matter, and used as fuel for power generation. The gas collection system comprises gas production wells installed into the active landfill, which is owned by Allied Waste Industries. The wells are fitted with wellhead comprising valves and flow meters to control the flow from each well. An underground pipeline network connects the wells to a central location. Mechanical blowers maintain vacuum on the gas collection system and compress the gas to the pressure required for supply to the generating plant. The generating plant comprises four gas engine generator sets.

Next up will be solar, wind

"We've already had discussions with DOE [the Department of Energy] and TVA about our next project," Whiteside says, "because we want to continue this on an ongoing basis. We will have tied down the biomass, and our next project will be either solar or wind, depending on how we can work out the interconnection and the pricing."

Green Power EMC leaders have already scouted a few potential wind sites in north Georgia. TVA is looking into wind power installations in Tennessee, which is a possible alternative for Green Power EMC.

"Right now we're in the exploratory mode with wind and solar power. We think we can probably site the solar projects easily enough if, in fact, we can get the appropriate space. We want to work with DOE on that because of the high installation costs of those projects," Whiteside continues.



Landfill gas is extracted from the landfill site, processed to remove moisture and particulate matter, and utilized as fuel for power generation. The power produced is supplied to the utility distribution system.
Source: Green Power EMC.

Grants and cost-sharing funds are available for projects of this type through the DOE. "At this stage, there aren't very many viable solar projects out there, so that makes their pricing almost prohibitive." If the DOE lends support, the green power group is interested in siting solar and wind projects and offering these resources as part of its package to customers.

Don't forget the importance of marketing

The number of customers who sign up for the green power premium is crucial to future plans.

"Obviously what will restrict the growth is the subscription process, so the more people that subscribe and want to purchase green power, the better impetus we will have to go out and seek other sources," notes Whiteside.

To assure customer participation, marketing will be important. In November 2001, Green Power EMC leaders — accompanied by U.S. Rep. Mac Collins and representatives from the DOE, EPA, EPD and RUS — held a press conference in Atlanta to introduce the concept.

The initial marketing plan for most of the 13 EMCs is to follow the major announcement with bill inserts, including sign-up sheets describing the program and inviting participation. Coweta-Fayette EMC provides a green power sign-up booth at its annual membership meetings. The utility is issuing press releases and will step up its marketing efforts as the program progresses.

A unique opportunity

Participating utilities are expected to join the membership and to reserve a portion of the allotted share of the resources in order to finance the generation. However, it's impossible to tell at this time what percentage of the generation mix renewables will claim or how much the new resources will impact the utilities down the road.

"This is kind of a nebulous thing because we don't know what sort of resource mix we can add, so we haven't tried to project 10 years into the future," Whiteside says. The utilities do know that they will be well-served by having access to the greatest variety of resources.

"We think this is a unique opportunity for us as a utility to offer our membership a choice of where their generation is coming from," Whiteside says. "Beyond our standard nuclear, coal, gas-fired turbines, this is an addition to that mix that we hope to build on."

On the customer service side, Green Power EMC emphasizes the environmental impact of its program. As consumers around the country have proven, a certain percentage of environmentally oriented customers are attracted to green power programs, although the numbers vary from state to state.

The greatest challenge in getting such a program underway are "to continue to get the message to our members on what we have to offer and to encourage their participation," Whiteside says.

Another challenge is continuing to add to the mix of power sources. "I consider this a very young industry, so we're going to have to seek partnerships and people who can assist us in getting this new source of generation on line," Whiteside explains. "One of the things that makes us unique is that all of the members agreed to pay a surcharge in the rate structure to create a research and development pool so that we can also use the moneys for R&D projects in the future. I think it says we're serious about what we're doing and we plan to grow this industry."

AUSTIN ENERGY

Wind powers 20,000 Austin, Texas, homes

Executive Summary

Utility: Austin Energy is the community-owned electric utility in Austin, Texas. The municipal serves about 350,000 customers. It owns or has an interest in gas, coal and nuclear power sources, which each represent about one-third of the total megawatt-hours used. Utility revenues are in the $800 million range.

Topic: With natural gas prices 200% to 400% higher than in previous years – and no signs indicating they will drop to pre-1999 levels — Austin Energy is looking to renewable energy as a cost-effective alternative. The utility is adding the power of 59 state-of-the-art wind turbines within the next few months to deliver 86 MW of electricity to 20,000 homes and businesses in its GreenChoice program, and more will be added at a later date. The city of Austin has decreed that 5% of the utility's electricity will be produced from renewable sources within the next four years. Those working within the GreenChoice program foresee that number rising to 40% at some point, due to the long-term value of renewable energy. In the first two months of the program, about 4,000 homes and 70 businesses signed up. Austin Energy has rolled out an advertising campaign, including its first-ever TV spots, in its efforts to ensure this program is one of the most successful in the country.

Wind. It's free, and using it to power a turbine doesn't pollute or deplete any of the Earth's precious resources. Wind power looks like such a promising green option for Austin, Texas, in fact, that the city's 350,000-customer municipal utility has ordered 59 state-of-the-art wind turbines.

From a wind farm in west Texas, where Austin Energy is installing them, these turbines will deliver 86 MW of power to more than 20,000 homes this summer.

The effort puts the utility further down the road in meeting the city council's decree that 5% of the utility's electricity come from renewables within the next four years. That decree illustrates the city council's confidence in the reliability and stability of green power.

Mark Kapner, Austin Energy's manager of conservation and renewable energy, believes that once the utility's top executives fully embrace the potential economic impact of renewables, Austin Energy will far surpass that 5% figure. He estimates reliance on wind, landfill methane, solar and other renewable sources may zoom to 40%, based strictly on value and savings.

"Utility executives are inherently very risk-averse. This is not risky; this is the less risky option. It's really turning the tables. Traditionally renewables have been seen as flaky, environmentalist, tree-hugger, granola-eater stuff. In reality this makes good, solid business sense," Kapner says. The environmental benefits are icing on the cake, he adds.

The arrival and installation of these giant wind machines is making a big splash in west Texas. Standing 200 feet high, with three 100-foot fiberglass blades, they are powerful and efficient, each rated at 1.3 MW. They are manufactured by Bonus Energy A/S of Denmark. On average the turbines should supply about 260,000 MW in a total system-wide usage of about 10 million MW.

Misconceptions about wind power are based on past history rather than current reality, according to Kapner. "People see wind turbines in California. They're much smaller. They're much older technology. They're noisy; they kill birds because they use lattice towers rather than tubular towers." In addition, those 15-year-old wind turbines were more expensive to buy, making their energy more costly per unit.

Venture stabilizes utility costs

Within Austin Energy's GreenChoice program, customers sign up for a renewable energy rate that locks them into a fixed price for 10 years, as opposed to the standard fuel-based rate. Wind power and landfill methane are the two major energy sources in the program and account for almost 4% of the total energy sales, up from .4% last year.

As of April 2001, almost 4,000 residential customers — as well as about 70 small businesses and large commercial customers — have joined the program.

"This is a way to stabilize our costs. The beauty of this is we actually have long-term power purchase agreements with these projects. They're built exclusively for us, and we buy all the energy they produce; but, we never have to lay out any capital. There's no risk involved at all," says Kapner.

Area businesses are demonstrating their commitment to the Austin environment by purchasing electricity from the clean sources of wind, sun, and methane gas.

Courtesy of Austin Energy.

Turbines similar to these will be placed in a mountainous area in West Texas. Existing transmission lines will carry the power they produce for GreenChoice to Austin. Courtesy of Austin Energy.

Wind energy is less expensive per kilowatt-hour than the typical energy the utility purchases, and less expensive than producing energy in the power plants that are fueled by natural gas, which represents one-third of Austin Energy's total energy usage. Today's cost of gas for each kilowatt of electricity is about five cents. Wind comes in under three cents. "The wind is going to displace gas. It's going to displace some coal as well," Kapner continues.

The modern class of wind machines is extremely reliable. Considering routine maintenance, availability exceeds 95%. "These are going to be producing at peak rating. In other words, when the wind is 27 miles per hour or stronger, they're at their peak rating, which is 1.3 megawatts," Kapner adds.

The project came out of a joint agreement by the city council and a citizens' advisory committee. In January 1999, the utility sent out RFPs and received 12 proposals from vendors for both the wind and landfill projects. Cielo Wind Power of Austin entered the low bid for the wind and won the contract to develop the wind ranch in conjunction with Renewable Energy Systems, which is part of the British construction group, Sir Robert McAlpine. The turbines are being erected on a 10-square-mile mesa atop King Mountain, 50 miles south of Midland, Texas. The developer has constructed more than nine miles of power lines connecting the wind farm to the electric grid. Austin Energy pays a monthly fee for the power used, and the developer takes care of the rest. By the end of July 2001, all 59 turbines in the current phase of the project are expected to be operating.

'We're going for broke'

Austin Energy's marketing department has stepped up to the plate to ensure a proper rollout of the wind program. The first big push was an effort to sign up well-known customers such as IBM, 3M and State Farm. More than 17 have come aboard.

Those who signed up early for at least 10% of their usage over a certain period of time were guaranteed to be part of Austin Energy's advertising package. These businesses are given space for their logos and heralded as corporate champions in newspaper, billboard, and other advertising. They appear, also, in the utility newsletter, which reaches every customer along with their utility

bills. "This is how we gave them credit for taking that initial step," explains communications director Ed Clark.

Sounds like a good deal for the companies, but have they had to pay higher rates?

"They did when they signed up, but since natural gas prices increased, those that signed up for the initial offering are actually paying less," Clark says. Additionally, their 10-year fixed green power charge — which is 1.7 cents — replaces the standard fuel charge — which now is 2.69 cents. The green power charge for new participants is 2.85 cents.

The average residential customer currently pays only about $1.70 more per month under the higher premium for green power. The program is so new that customers only recently received their first GreenChoice billing.

Austin Energy has allocated about $500,000 annually to the program's marketing budget. Television advertising began in April 2001 and will run through June 2001. Then, the ongoing campaign will start up again in the fall of 2001 and spring of 2002.

FYI

Austin Energy has allocated about $500,000 annually to the program's marketing budget.

"It's the first time the city of Austin has ever advertised on television," Clark comments. "We're going for broke. We want this program to be one of the most successful in the country."

The ads primarily focus on customers' ability to make a significant contribution to the quality of life in the community for a very small amount of additional money. The secondary message is that the green option provides a hedge against rising fossil fuel prices, which have ranged between 200% and 400% above normal since 1999.

The utility may also funnel sign-up efforts into grassroots participation by civic, church and other community groups, which will receive reimbursement for customers they bring into the program.

"The advertising is designed to generate interest [rather than answer all customers' questions]. We have a couple of wonderful spots that are actually fairly inspiring. Our goal is to follow that up with a direct contact" through the newsletter, direct mail and local organizations, Clark explains. "The one-on-one, direct approach seems to be the best for actually signing people up." The utility also has designated a sales person to call on businesses strictly for the GreenChoice program.

In a few months, Austin Energy will have increased renewables from 0.4% to 4%. "The real challenge is going to be the next step, which is to go from 4% to 40%," Kapner says. He is confident that utility management will buy into his goal, which is reachable within five years. "To go from 4% to 40% is going to take more than wind on its own. It's going to take a combination of other technologies that we need to [implement], such as energy storage of various kinds."

In the future forward-thinking utilities "are going to be moving to obtain a very substantial portion of their energy requirements from these natural sources, including wind. In Texas," predicts Kapner, "wind is going to make a dramatic impact."

ALLIANT ENERGY CORP.

Green power program can help build relationships

COMPANY PROFILE

Alliant Energy Corp. of Madison, Wis., provides electric, natural gas, water and steam services to more than two million customers worldwide. It has about 6,900 employees and is organized into three subsidiaries.

- Alliant Energy's Utility Operations serves more than 1.2 million customers in Iowa, Illinois, Minnesota and Wisconsin through its operating units, IES Utilities Inc., Interstate Power Co. and Wisconsin Power and Light Co. The service territory covers 54,000 square miles and includes 9,700 miles of electric transmission lines and 8,000 miles of natural gas main.
- Alliant Energy Resources, Inc., home of the company's non-regulated businesses, markets energy and other products and services to industrial, commercial and residential customers around the world. It has operations and investments throughout the United States, as well as in Australia, Brazil, China, Mexico and New Zealand.
- Alliant Energy Corporate Services supports the other areas of the company with traditional administrative functions, including information technology, human resources, communications, environmental, safety and more.

Featured product/service: Green energy

Alliant Energy's Second Nature is a green energy program that allows residential customers the option of paying more for renewable energy. There are three levels of participation:

- Nature Sentinel — This introductory program allows customers to take the first step toward preserving the environment by participating at the 25% level, meaning they pay more for one-fourth of their power. This level adds $3.25 per month to the bill of an average household that uses 650 kWh. Participants receive an Alliant Energy Second Nature window cling.
- Eco Watcher — This mid-grade program allows customers to make an extra commitment by participating at the 50% level, meaning they pay more for half their power. For an average household usage of 650 kWh, participation adds $6.50 to the bill. Participants receive an Alliant Energy Second Nature canvas tote bag and window cling.
- Earth Steward — This option allows the customer to pay more for 100% of their power, resulting in a $13 per month increase in the average household bill of 650 kWh. Participants receive an Alliant Energy Second Nature T-shirt, tote bag and window cling.

There's no special equipment to buy and customers don't have to change their lifestyle; they simply select the plan and pay the bills. They can sign up for or cancel the program at any time.

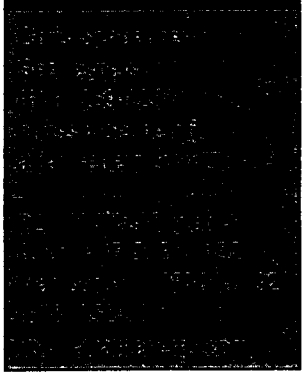
The utility invested in technology to produce renewable energy created by wind and biomass. Wind is being harnessed through the familiar big white wind turbines, especially in the Iowa market. Biomass energy comes from landfills — from the methane gas released by decomposing wood, plants and household trash. This effort required both research and development as well as regulatory permission in Wisconsin.

Organizational matters:

While Second Nature will be offered as an option to all of Alliant's residential customers, it was available only in Wisconsin and Iowa as of February 2001. The gradual rollout was partially due to the challenge of complying with differing state regulatory rules. The program was announced in June 2000 in Wisconsin during a national renewable energy fair in Madison. However, says company spokesperson Chris Schoenherr, gaining regulatory approvals for the landfill gas sites delayed the program's launch, so while the rates were approved and Alliant started signing up customers in 2000, the first enrollees would not begin seeing the program on their bills until March 2001. The program was approved in Iowa in late 2000. The utility has begun signing up customers, lining up power sources and sorting through permitting issues.

The target market will not include commercial or industrial customers in the near future, not until Alliant can work out rate structures and marketing plans for these customers.

CONTACT INFO



Marketing/sales efforts:
Alliant Energy first began researching a green power program after several customer surveys showed that well over three-quarters of respondents expressed an interest in renewable energy; a fair number of those said they would pay more for the energy, Schoenherr says.

With slogans like "Second Nature: The best thing you can do for the environment is also the easiest," central marketing themes are an appeal to customers' sense of environmental responsibility and the program's ease. Dependability will be another theme, Schoenherr says, as is choice. The company already has a page on its Web site devoted to Second Nature, offering it as a choice in addition to electricity from non-renewable sources such as coal, oil or natural gas. "While it is a popular option, it is not for everybody. But I think most customers like having the option there for them. Customers value that."

The Web site uses interesting facts, such as "one wind turbine can generate enough power for 250 homes," to drive home points. "You cannot touch [green power], taste it, feel it or smell it, so you need [participants] to say what a benefit it is to them and how it helps future generations," Schoenherr adds, alluding to a testimonial-type marketing program. Other avenues of communication with potential customers will include newspaper advertisements and direct mail campaigns. One of the biggest marketing challenges is explaining biomass energy, "an educational process that will take some amount of time," Schoenherr says. But with the California energy crisis and increased heating bills nationwide making big news, Schoenherr says now is an opportune time to present energy alternatives.

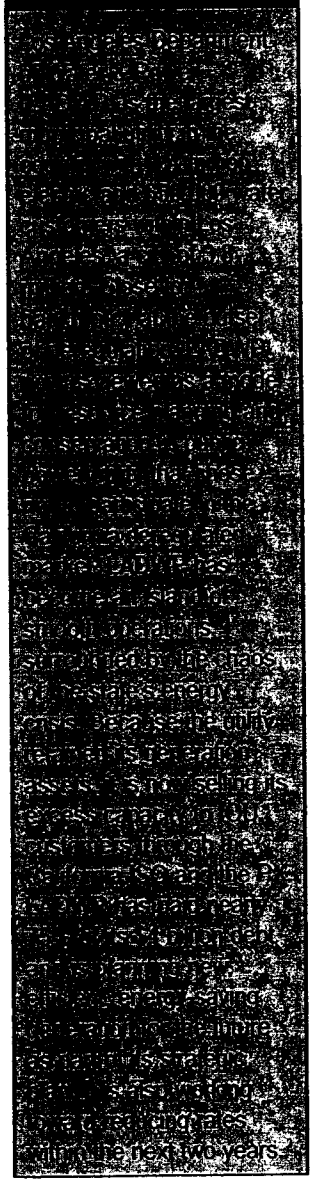
Program goals:
The company hopes to enroll 7,000 residential customers in the first year across both states. Customers at each of the three levels of participation — budget-constrained consumers, middle-of-the road customers, and total supporters — will be monitored in each service territory to determine if the program needs to be altered. Schoenherr says he plans to collect feedback from customer participants. "You can learn a great deal about a program from users — what they liked. It can be a great learning opportunity." He hopes to set up an advisory panel and collect feedback from the Web site and surveys periodically.

Advice/lessons learned:
Schoenherr suggests appointing a diverse panel involved in an advisory role from the get-go. "It has been my experience, also, that you should include not just environmentalists, but builders and contractors — people who will give you a lot of different perspectives," he says. The next step is ongoing communication with green power customers. "Keep them involved and interested. Don't let them think you forgot about them," he says. A green power program can be a great relationship builder. Clean air advocacy groups and utilities, for instance, don't usually see things eye to eye, but this is an opportunity to do something productive together, Schoenherr says. "From a utility perspective, regardless of whether you are going to move toward a competitive environment or not, moving toward more choices that will benefit your customer is always beneficial," Schoenherr says. Finally, he recommends being enthusiastic and having fun with the new product or service. "When people at the utility are enthusiastic, customers will respond in-kind."

Los Angeles Dept. of Water & Power

At LADWP, green power goes along with conservation

COMPANY PROFILE



Featured product/service: Green power and conservation programs
The utility has developed the largest green power program in the nation, with 65,000 participants. It has instituted numerous conservation and demand-side management programs to conserve energy and improve the environment. LADWP's green power generation at this time is 80% hydro and the rest "new green," or other renewable sources. To encourage green power customers to lower their electric usage, the utility gives them two compact fluorescent light bulbs at sign-up and two more in six months. They also receive a free home energy survey CD-ROM. The CD enables individual residential customers with a home computer to survey their homes and apartments to maximize efficient use of electricity. It also provides links and lists of additional resources and information.

The utility has developed about 12 different energy conservation programs. Some of those targeted to larger customers include a menu of discounts for energy-saving measures such as lighting, and incentives for installing new systems such as thermal energy storage. "We are also investigating distributed generation," says Walter Zeisl, director of communications in LADWP's strategic planning organization, including fuel cells, microturbines and electric vehicles, with the public benefit funding paying for some of the new R&D. "We will be testing distributed generation in our building ... for commercial application."

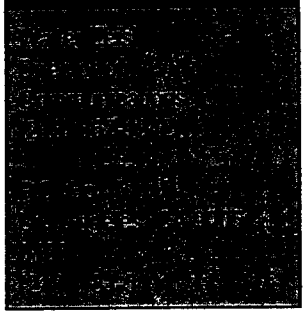
One of LADWP's most successful conservation initiatives, the Neighborhood Bill Reduction Program, has won an award from the California Municipal Utility Association as one of the best practices and best uses of public benefits funds. With more than 100,000 participants, the program has saved about 30 million kWh. "This is a program in which we hire nonprofit, community-based organizations and give them sections to work in the city. We send letters out to specific ZIP codes with low-income customers asking them their interest in participation," Zeisl explains. Representatives from the nonprofit groups schedule appointments with customers, perform energy audits, provide compact fluorescent light bulbs, clean out refrigerator coils, add water conservation devices and employ other energy-saving methods.

Another large project is the LADWP solar program. Within the program is a buy-down incentive that pays $3 to $5 per watt. The money is used for purchasing solar equipment that is assembled or constructed by the city of Los Angeles. "There are some major manufacturers, I believe, that will be setting up shop here in order to take advantage of that incentive," Zeisl says.

One innovative program is the sale of Green Power Certificates on a one-time basis for as little as $5 each, which can be purchased in someone else's name as a gift. Whereas formerly the only way to purchase green power was through the LADWP bill, certificate buyers don't have to be LADWP customers.

New generation is coming to LADWP in many forms, one of which is renewables. In August 2000, the Los Angeles city council approved a sweeping, 10-year power

CONTACT INFO



expansion program calling for a $1.7 billion investment that will finance 2,900 MW of repowered, in-basin power generation, including renewable sources of energy and demand-side management. The aim is to improve reliability, lower prices and address environmental concerns. The Integrated Resource Plan will modernize 10 existing units with new, highly efficient combined cycle natural gas facilities with state-of-the-art emission controls. By 2010, pollution from the old plants is expected to be cut by more than 65%. Combustion turbines will be added to meet emergency peak power needs. A total of 500 MW of additional power will come from the new units. Renewable energy, distributed generation and demand side management will bring another 460 MW to LADWP's in-basin power supply.

Organizational matters:
When California's Assembly Bill 1890 passed in 1996, LADWP, as a public power company, made the choice to opt out of competition. The decision could have been disastrous, because it left the utility with all its generation assets and a related $4 billion debt. The IOUs, however, were required to compete and forfeit their power sources as part of the deregulation plan. In addition to its major source of energy, Utah Intermountain Power, LADWP has 24 major thermal generating units at eight facilities. At this time the utility generates 55% of its energy from coal, 16% from natural gas, 13% from nuclear, 12% from large hydro sources and 5% from renewables. It is interesting to note that from 1996 to 1998 LADWP appeared to be on the brink of bankruptcy in large part because of the debt, which was incurred from building power plants in the 1970s. The utility rolled up its sleeves and slashed its workforce by 1,200 — leaving about 7,000 employees — sold off real estate holdings and concentrated on streamlining operations. LADWP now finds itself in a healthy position partly because of the power plants, which are paying their own way at this time through the sale of the energy they produce.

FYI

One innovative program is the sale of Green Power Certificates on a one-time basis for as little as $5 each, which can be purchased in someone else's name as a gift. Whereas formerly the only way to purchase green power was through the LADWP bill, certificate buyers don't have to be LADWP customers.

General Manager S. David Freeman came to LADWP in 1998 and his vision of environmental compatibility and investing in the future has set the agenda for utility operations, according to Darlene Battle, public affairs media manager. "LADWP has always been very concerned with energy efficiency and water conservation. When David Freeman came in, he brought in another aspect, that of generating new sources of energy from wind, water, geothermal, solar — that would also create industry within the state. It involves looking ahead and saying, 'this would be good for the city,'" Battle says.

LADWP has set in motion numerous energy-saving and clean power initiatives. The Green Power for a Green LA program has signed up 65,000 customers, making it the largest green program of any utility in the nation. Green power customers pay 6% more than customers on the conventional rate. When the program reached 20,000 in November 1999, Freeman announced he was looking forward to reaching 200,000 customers within a few years. Because of the number of participants in the program, the utility is able to sign contracts to purchase solar, wind and geothermal resources.

The restructuring act requires all utilities in the state to add a 2.85% surcharge on customer bills to be used for public benefits in the areas of renewables, low income programs, research and development, and conservation/demand-side management. LADWP cut expenses by at least that amount and therefore did not increase rates to finance public benefits. Some of its Green LA programs fall

under the pubic benefits program while others are independent. Two of the many components of the Green LA program that do not fall under public benefits are green power and recycling.

To help finance the new or upgraded power facilities, the utility will sell its 20% share of the Mohave Generating Station in Southern Nevada. This will bring in $190 million plus another $75 million earmarked for the plant's needed pollution controls.

Marketing/sales efforts:
The programs have their own Web site — www.GreenLA.com — and phone number (800) GreenLA.

Solar power will be highly visible around LA. "For the next five years we'll be installing 35 solar systems in city facilities — parks, libraries, schools and other public places — as a way to promote conservation and our solar program." The most significant use of solar so far has been the construction of panels for the Democratic National Convention media center. The panels continue to power 15% to 20% of the large building. Overall, Zeisl estimates the utility invests about $8 million to $10 million per year in the solar initiative. Customer incentives for building solar panels amount to about 50% of the cost, which is applied after construction.

Program goals:
With the growing population and energy demand, LADWP considers these programs vital to meeting future load requirements and saving enormous costs in building additional generation facilities and transmission lines. By lowering emissions and protecting the environment, the utility accepts its role in improving the quality of life in its territory. As a public power organization, LADWP views its shareholders as the residents of Los Angeles. "The dividend we pay is the quality of service and the low rates we offer," Battle says.

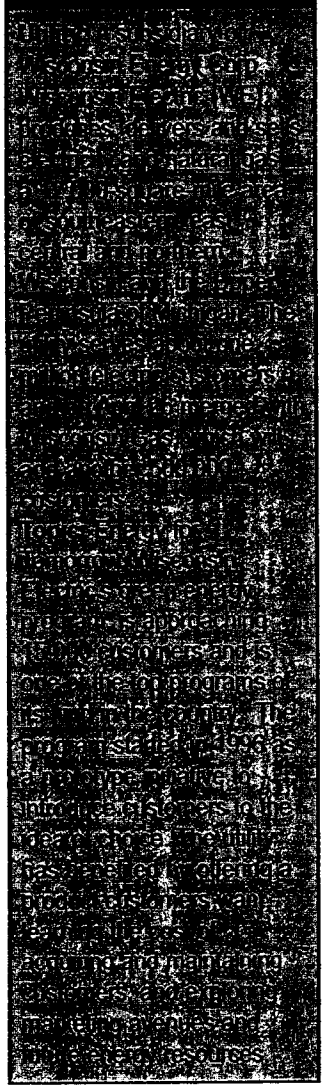
The utility will have its debt paid off by 2003 or earlier and has made a commitment to decrease customer rates by 5% in 2002 and 10% in 2003.

Advice/lessons learned:
Ideally, competition would stimulate lower energy prices from power marketers. In reality, the IOUs are at the mercy of outside market forces. Two years after AB 1890 was activated in March 1998, LADWP is holding rates steady and even planning a future rate reduction. LADWP is expanding its demand-side management and popular conservation programs. And it is selling its excess power supply to the IOU customers through the California ISO and the California PX. LADWP sells about 300 MW/hr of excess power to the California market. During the energy crisis, the utility has been posting daily energy updates on its Web site concerning its available power load, which is being offered to meet the needs of Californians only. For example, on Jan. 12, during a Stage 3 emergency alert — called by the California ISO when operating reserves fall below 1.5% — LADWP provided between 300 MW and 890 MW per hour to the ISO. Its own peak load for that day was 3,610 MW. Ironically, surplus energy sales are hastening the pay off of LADWP's debt. Less than four years after the utility determined it would not participate in deregulation, it has cut its debt by nearly 75%, to just over $1 billion.

WISCONSIN ELECTRIC

Green power opens doors for Wisconsin Electric

Executive Summary



Driving along U.S. 41, the major thoroughfare between Milwaukee and Fox Valley, Wis., you can't miss them. Just off the highway, two wind turbines visible from as far as five miles away loom against the sky. Erected by Wisconsin Electric in June 1999 as a supplemental power source for the utility's Energy for Tomorrow renewable energy program, the wind turbines are doing more than providing a power source. As one person told the utility, "What you really have is a billboard that generates electricity." With about 75% of the public interested on some level in "clean" or "green" energy, the wind turbines represent Wisconsin Electric's positive response to that demand.

The Energy for Tomorrow program began in 1996 and continues gathering momentum. The first year, 7,200 customers signed up, and by this summer the utility expects to have about 15,000 participants in the program, ranking it as one of the largest of its kind in the country.

In April 2000, the company became one of just three regulated utilities to earn national accreditation for its renewable energy program. The Center for Resource Solutions (CRS) — the same group that provides the "green E" logo for competitive markets — has created a similar stamp of approval for noncompetitive markets. Its first awards were presented to Wisconsin Electric, Nashville, Tenn.-based TVA and Madison (Wis.) Gas & Electric for "meeting or beating national accreditation standards for environmental and consumer protection." The three utilities were recognized at the National Press Club in Washington, D.C., for their "collaborative work with local consumer and environmental protection groups on offering high-quality green energy programs to their customers."

CEO vows to be program's first customer

Wisconsin Electric's green power program is an offshoot of public discussions on restructuring and customer choice that started in 1995. Although industry restructuring was put on hold in Wisconsin, the utility came away from the debates with the realization that the public didn't widely understand customer choice issues. Some kind of program was needed as an example or prototype for customer choice. At the same time, renewable resources had been a topic of discussion for a decade. It was the perfect fit for introducing customers to choice.

The few people who were working on the program decided "we were going to keep pushing it until somebody said no," says Chris Schoenherr, WE's senior strategist of business planning. "Well, no one was saying no." Finally it hit the top level of the company, Chairman and CEO Richard Abdoo, who advised the group to keep pushing the program hard and fast because, in his opinion, renewables were destined to be not only an important part of the company's future, but the country's as well. At the same time, he vowed to be the program's first customer.

With that kind of commitment the program took off. "We did a series of focus groups for 'light green' customers and 'dark green' customers and green businesses," relates Schoenherr, referring to the various levels of commitment consumers have to clean energy.

Focus groups point to pricing options

"We went into [the research] with a 100% green power offering, and our focus groups told us that this was probably doomed to fail. People didn't understand a great deal about renewable power. And they wanted more options than just a 100% option. It was driven as much by price as anything else," Schoenherr explains. Whether the utility was too technical or just generally unclear about how renewable resources worked, the "green team" of six went back to the drawing boards.

They brought back to the table a clearer explanation of renewable resources. Solar and wind power were generally understood and accepted, but hydro, biomass and other resources required explanation. The team had spent time exploring available resources and looking into which ones could be offered to consumers quickly. At that time, those resources included biomass and hydro power.

By the time the PSC approved the program in June 1996, the team had lined up the power supply and devised a new rate structure. The program was reworked to include purchasing levels of 100%, 50% or 25%. At the time, residential retail electric rates were about 6.6 cents per kWh. The premium green power rate — the 100% level — was set at an additional 2.04 cents per kWh. For 50% green, it was 1.02 cents per kWh; and for 25%, it was 0.51 cents/kWh. The average customer would pay about $3 more per month for 25% renewable power and about $10 more at the 100% level.

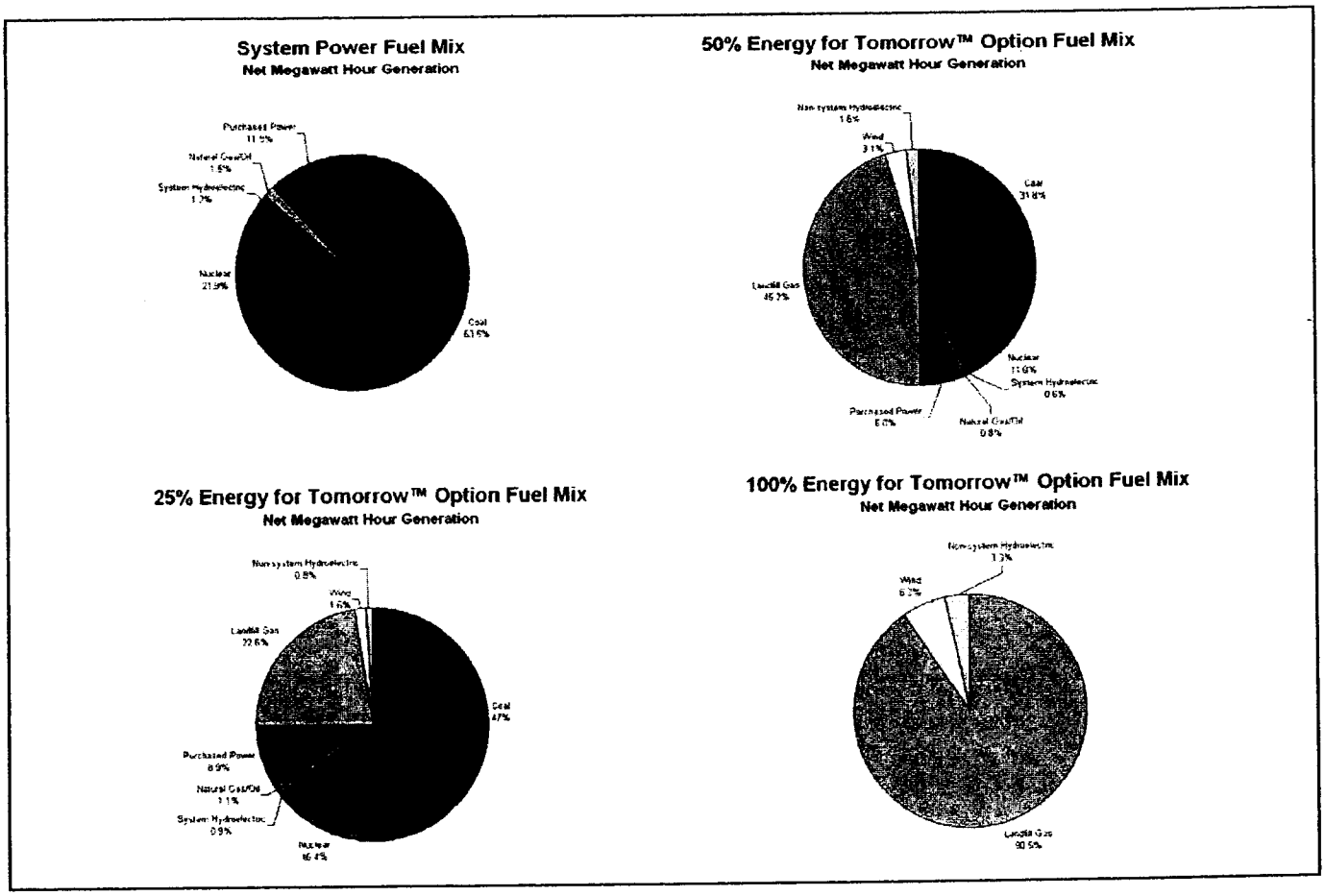
Although some environmentalists balked at the program's initial offering and others openly disapproved — they would have preferred to see wind power offered and generally had a negative view of the utility — the company wanted to get the program underway without taking the risk of building new generation at that point.

In the fall of 1996, Wisconsin Electric launched a test direct-mail campaign to 50,000 customers to determine which segments would be most likely to participate. About 1,000 signed up. With a better profile of who the potential participants would be, the utility sent out another, more targeted direct-mail piece in early 1997 and followed up with a telemarketing campaign. "That was hugely successful, and we met our goal of 7,200 participants before we hit our June 19 one-year anniversary."

Winning over environmentalists

To what does Schoenherr attribute the success of the campaign? To begin with, "it's a product that folks wanted," he says. Second, "as a utility, our mail still gets opened. So we have a pretty good chance of people reading whatever it is that we send. The combination of sending the direct mail and then having an opportunity of talking with someone [through telemarketing] about the program, answering questions, helped close the sale." At that early stage in the program, even the skeptics were convinced it was worthwhile.

Beyond its early success, the program generated positive relationships with environmental groups — with whom the utility had been at odds for years. And it gave the utility a boost in the midst of a series of negative events in 1997 — the doomed proposed merger with Northern States Power; a 15% rate increase; the shutting down of the utility's Point Beach nuclear plant due to operations problems; and the subsequent power shortages that put a strain on the utility's relationship with customers. During all of this upheaval, the green power



The above pie charts detail the current fuel mix of Wisconsin Electric's various power options.
Source: Wisconsin Electric, Milwaukee, Wis.

group was accumulating customers and claiming a 90% retention rate. Local environmental groups and Wisconsin Electric were developing a solid working relationship that continues to endure.

In 1998, the time had come to request bids for additional power supplies. "Part of that was to meet a state mandate, but part of it was to see what we could pick up for this program. Ultimately, we chose new landfill gas. That's another educational issue. Methane is about 20 times more potent as a greenhouse gas than CO_2. Most people don't know that. You're using the methane that would be generated by decomposition in a landfill to generate electricity," says Schoenherr. "We got a reasonably good price on that. We can blend it with our new wind power, have 75% of our capacity as new capacity, and not change the price at all. So mixing those things was pretty popular."

The two long-awaited wind turbines were built in early 1999. They are marked with the Energy for Tomorrow logo, and customers who are part of the program can claim pride of ownership in the project. With the majority of the Wisconsin Electric program now coming from new resources, rates are somewhat higher than some programs around the country that are not based on new resources.

Two programs that meet or exceed Wisconsin's level of participation are the city of Los Angeles and Public Service of Colorado. There are an estimated 50 green programs in place, but the larger of these programs are considered unique at this time. The city of Los Angeles may be the largest, with about 20,000 customers. Wisconsin Electric and Public Service of Colorado follow closely behind.

But Wisconsin Electric's program is unusual in the world of renewable energy because it is structured to supply the green power upon request. The utility's approach is to deliver the product as needed without having to place consumers on a waiting list. "If they want to buy green power we've got it, and we've got it today. If we need to get more, we can get more," Schoenherr notes.

Wisconsin Electric expects to see business customers attracted to the program, which is now nearing 15,000 residential participants. "Customers that demonstrate interest in a premium product...are a nice group. That's part of what the accreditation program is all about." Schoenherr foresees companies placing the green logo on their products to attract the same kind of customer loyalty the utility has experienced through its Energy for Tomorrow program.

Tweaking the program

As the program matures, the utility has made adjustments according to customer response and input from a customer advisory panel. One such item was a 15% fuel cost surcharge for all customers, which Energy for Tomorrow participants requested be applied on their bills to new renewable energy and renewable research and development. The utility agreed. Another suggestion from the advisory panel was to gain more exposure for the program through educational programs. Again, the utility complied, setting up booths and installing smaller renewables at the Milwaukee County Zoo and at three nature centers. A newsletter is sent to participants six times a year to maintain interest, expand education and assure customer retention.

Customer service, future power sources, tackling environmental issues and studying the future role of green power are all invaluable reasons to keep the program a high priority. Learning what it takes to serve customers in a competitive environment is one of the program's greatest benefits.

"It's good to get some experience. There's a feel-good aspect to it, but it does go well beyond that," says Schoenherr. "We have a pretty fair idea of what it costs to get a customer right now. Once you've got them, you have to hang onto them; [we're learning] what it takes to hang onto them. When we think back to our original plan, why did we want to get into this? We wanted to give customers an idea of what [choice] is going to look like. Well, we gave ourselves a pretty good idea of what this is going to look like, too. That was a really important lesson."

Schoenherr points out that in competitive markets such as California, most residential customers who have switched have switched to a green power product. Even in Pennsylvania, where price is a factor, he estimates that 25% to 30% of consumers are paying more to switch to a green product. At Wisconsin Electric, the program has come close to breaking even since the first year and it must stand on its own.

The utility is starting another marketing campaign this year. "It's a challenge," he says. "If you really wanted to push a program hard and fast, you'd have to spend a lot more marketing dollars early and then be able to wait it out for a couple of years. It's a little tough in a regulated world." The utility will stick with what has worked in the past — a soft-sell, direct-mail and telemarketing blitz with a little radio thrown into the mix. With the help of environmental groups, the utility has access to customer lists and is "getting a little tighter definition of who we think is going to be the most likely participant." As a regulated company, Wisconsin Electric is prevented from pursuing all the existing marketing avenues, which limits the scope of activities.

The program and its competitive nature are a first for the utility — the first

time it has had product differentiation and the first time it has offered different rates. The green team has learned "don't presume a wide level of knowledge [from the public] about electricity. Don't overwhelm people. Build background knowledge. And the time to explain [the program] is relatively short" — about 45 seconds on the phone. The utility has progressed in its marketing from a shotgun approach to a more targeted approach.

To retain those valued customers, it has found that continuous reminders are necessary. "Keep the program interesting. Don't let it get stagnant. Space things out throughout the year," advises Schoenherr. Building those relationships with environmental and clean energy groups is beneficial, he adds, and utilities that collaborate with these groups can create a win-win situation.

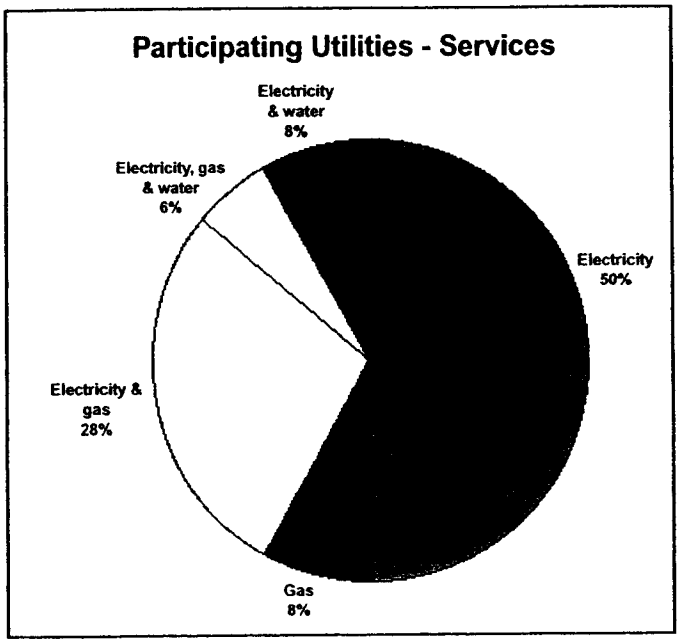
Although benefits can fall into gray, intangible areas, the program is not difficult to justify "when you have somebody at the top who sees that it intrinsically makes sense." For Wisconsin Electric, the program's ultimate value lies in the "preparation for what it's really going to take to sell a product in a competitive environment. You can learn about what skills you have and what skills you don't have," according to Schoenherr.

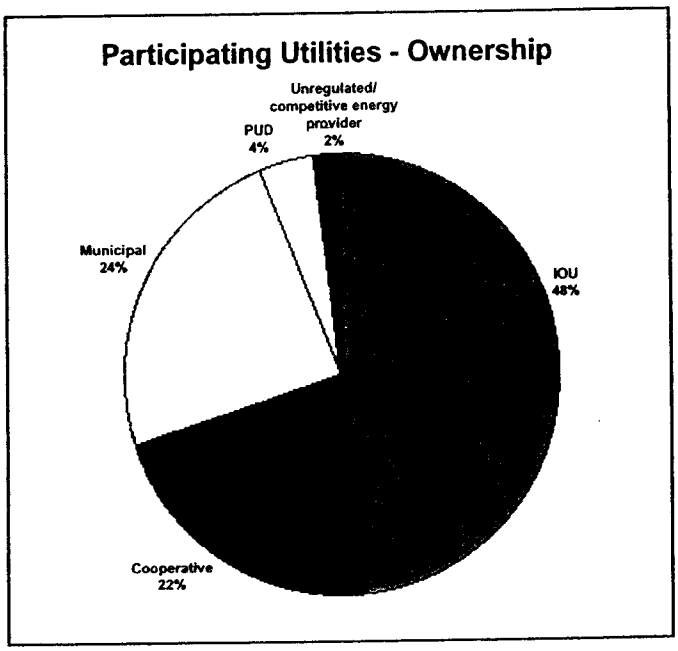
Strategically, changing the mix of generation sources — most utilities rely on coal for about two-thirds of their generation — is not something that can be achieved overnight. If the fuel source is going to change, "politically that can be a tough situation, but if you have customer support...that makes it easier and gives you an indication of where the public really is. It's easy to say on a survey that this is what you like. But when customers have to write a check for it, you have a pretty strong indication" what they really want and will pay for. ❑

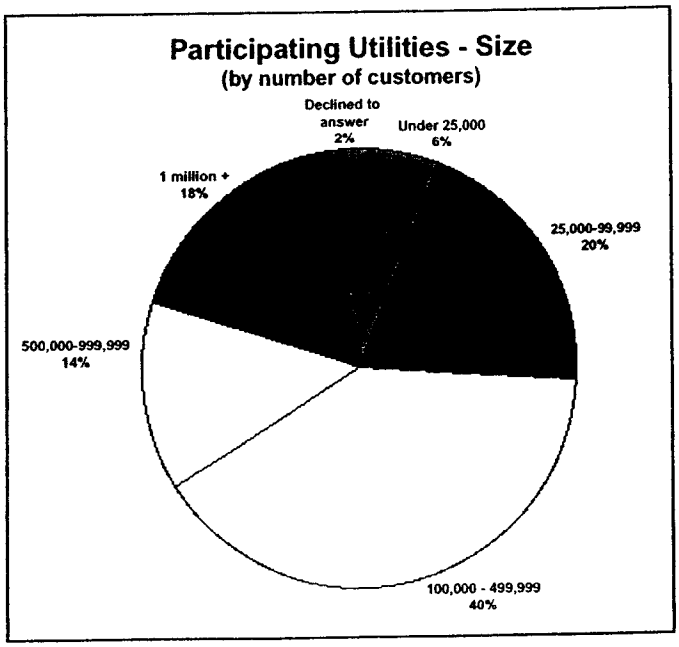
APPENDIX

Source of data found in this report

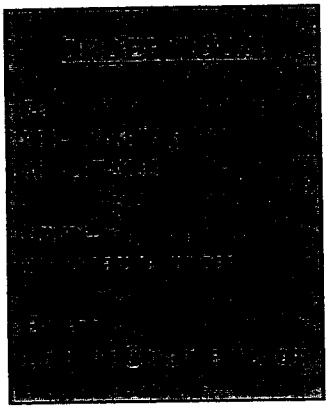
The data in Section I of this report is based on in-depth interviews with industry professionals who are knowledgeable about their energy companies' ancillary products and services for residential markets. These marketing, development and program management professionals represented 50 different energy companies across the nation. The interviews were conducted by telephone in February 2002. The random surveys included energy companies with the characteristics as shown in the pie graphs here. The two case studies Section II are based on lengthier telephone interviews with professionals at SMUD and Madison Gas & Electric. Those interviews were conducted in January 2003. The case studies in Section III were previously reported and published in Chartwell publications in 2000, 2001 and 2002.







CHARTWELL PRODUCTS



RESEARCH SERVICES

The Chartwell AMR Research Series	❑ $2495
The Chartwell CIS & Customer Service Research Series	❑ $2495
The Chartwell New Products & Services Research Series	❑ $2495

RESEARCH REPORTS

The Chartwell Customer Care Center Report 2003	❑ $895
The Chartwell Field Services Report	❑ $895
Credit and Collections in the Utility Industry	❑ $895
The Chartwell CIS Report 2002	❑ $1495
The Chartwell Load Management Report 2001	❑ $1795

COMPILATION REPORTS

Outsourcing: Solutions for the New Utility, 2002	❑ $695
Chartwell's Guide Customer Relationship Management in the Energy Industry, 2002	❑ $695
Customer Service in the Energy Industry, 2001, (4th Edition)	❑ $495

NEWSLETTERS

Chartwell's Best Practices for Utilities & Energy Companies	❑ $395
Customer Communications and Metering.	❑ $395

INDUSTRY REPORTS

AMR

Residential Time-of-Use: The Pros, Cons and How-tos	❑ $395
AMR for Transient Reads	❑ $250
AMR by Customer Type	❑ $250
AMR: Residential Gateways	❑ $250
Deriving Revenue from AMR	❑ $250
AMR Deregulation	❑ $395
Outsourcing of Metering Services	❑ $250
AMR Expenditures	❑ $250
The C&I Perspective	❑ $250
Load Management via AMR	❑ $250
AMR for Rural Applications and PLC Technology	❑ $250

CIS/CS

Customer Satisfaction in the Utility Industry	❑ $250
Market for Outsourced Customer Care Services	❑ $250
Systems Integration in the Utility Industry	❑ $250
Self-Help Options in the Utility Industry	❑ $250
Utility Bill Payment Options	❑ $250
The Chartwell Report on CIS Installation in North America	❑ $395
Customer Care in the Texas Retail Electricity Market	❑ $250
The Chartwell Report on CIS Expenditures	❑ $395

NPS

Renewable Energy for Residential Customers	❑ $250
Advertising and Promoting Ancillary Products & Services	❑ $250
Energy Mgmt. Services for Large & Small Businesses	❑ $250
Residential Surge Protection	❑ $250
Residential Energy Management and Energy Efficiency	❑ $250
Power Quality and Surge Suppression for C&I Customers	❑ $250
Residential Warranty & Financing Programs	❑ $250
Selling Green Power to Non-Residential Customers	❑ $250